



1
SEQUENCE LISTING

<110> ROTH, CHARLES W.
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HOLM, INGE
GRAILLES, MARINE
RZHETSKY, ANDREY

<120> MULTIDRUG RESISTANCE PROTEINS IN DROSOPHILA AND
ANOPHELES

<130> 03495.0294-01000

<140> 10/807,466
<141> 2004-03-24

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 Ser Ile Arg Arg Asn Val Asp His Ile Tyr Leu Phe Thr Phe Trp Thr
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 Glu Glu Tyr Thr Val Leu Pro Arg Glu Ala Glu Trp Gln Leu Gly His
 1235 1240 1245
 Val Asp Lys Ala Trp Pro Val Glu Gly Lys Val Glu Phe Lys Asp Tyr
 1250 1255 1260
 Gln Ile Arg Tyr Arg Glu Gly Leu Asp Leu Val Ile Arg Gly Ile Ser
 1265 1270 1275 1280
 Leu Asn Val Arg Gly Gly Glu Lys Ile Gly Ile Val Gly Arg Thr Gly
 1285 1290 1295
 Ala Gly Lys Ser Ser Leu Thr Leu Gly Leu Phe Arg Ile Val Glu Ala
 1300 1305 1310
 Ala Gly Gly Gln Ile Ile Asp Gly Leu Asp Ile Ser Lys Met Gly
 1315 1320 1325
 Leu His Gln Leu Arg Gly Arg Leu Thr Ile Ile Pro Gln Asp Pro Val
 1330 1335 1340
 Leu Phe Ser Gly Thr Leu Arg Ala Asn Val Asp Pro Phe Lys Ser Tyr
 1345 1350 1355 1360

Ser Asp Asp Leu Val Trp Lys Ala Leu Glu Leu Ser His Leu Lys Thr
 1365 1370 1375

Phe Val Lys Gly Leu Ala Ala Gly Leu Asp His Glu Ile Ala Glu Asn
 1380 1385 1390

Gly Glu Asn Leu Ser Val Gly Gln Arg Gln Leu Ile Cys Leu Ala Arg
 1395 1400 1405

Ala Val Leu Arg Lys Thr Lys Val Leu Ile Leu Asp Glu Ala Thr Ala
 1410 1415 1420

Ala Val Asp Leu Glu Thr Asp Asp Leu Ile Gln Lys Thr Ile Arg Thr
 1425 1430 1435 1440

Glu Phe Ala Asp Cys Thr Ile Leu Thr Ile Ala His Arg Leu Asn Thr
 1445 1450 1455

Ile Leu Asp Ser Asp Arg Val Leu Val Leu Asp Lys Gly Leu Val Ala
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Glu Cys Asp Ser Pro Gln Asn Leu Leu Ala Asn Arg Glu Ser Ile Phe
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Phe Gly Met Ala Lys Asn Ala Gly Ile Val Ser
 1490 1495

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 <213> Anopheles gambiae

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Ile Leu Gln Trp Val Pro Cys Leu Phe Leu Phe Val Phe Ser Ile Tyr
 35 40 45

Asp Ile Phe Lys Ile Thr Glu Ser Lys Tyr Arg Asp Ile Pro Trp Asn
 50 55 60

Trp Tyr Asn Leu Ser Lys Met Leu Val Ile Phe Leu Leu Met Cys Met
 65 70 75 80

Cys Trp Ile Asp Leu Gly Met Val Val Gly Tyr Gln Asp Glu Gln Gly
 85 90 95

Leu Tyr Asp Val Gln Ile Leu Thr Ala Val Phe Asn Ala Leu Ala Tyr
 100 105 110

Ile Asp Leu Leu Val Leu Leu Phe Phe Met Arg Lys Tyr Gly Val Arg
 115 120 125

Thr Ser Gly Thr Met Phe Met Phe Trp Phe Leu Arg Met Phe Phe Gly
 130 135 140
 Ile Ile Gln Leu Arg Thr Glu Val Met Glu Asn Asp Lys Arg Pro Asn
 145 150 155 160
 Ala Ile Gly Ser Gly Asp Thr Val Asp Phe Trp Glu Tyr Gln Tyr Val
 165 170 175
 Ser Tyr Ile Leu Gln Tyr Ser Leu Ile Cys Leu Met Leu Val Leu Glu
 180 185 190
 Leu Phe Pro Asp Lys Glu Pro Ser Phe Ser Tyr Tyr Pro Lys Ala Ala
 195 200 205
 Lys Pro Asn Pro Glu Leu Arg Ser Ser Phe Phe Ser Lys Leu Leu Phe
 210 215 220
 Leu His Phe Asp Ala Phe Ala Trp Lys Gly Phe Arg Asn Pro Leu Thr
 225 230 235 240
 Met Asn Asp Met Tyr Asp Ile Asn Pro Gln Asp Ser Ala Arg Glu Leu
 245 250 255
 Val Pro Pro Phe Asp Lys Tyr Trp Lys Ile Ser Val Glu Lys Gly Arg
 260 265 270
 Lys Gln Gln Met Ala Ser Asp Arg Lys Ala Gly Lys Pro Asp Ile Asp
 275 280 285
 Tyr Lys Pro His Ser Pro Ser Asn Gly Ser Val Leu Tyr Thr Met Ile
 290 295 300
 Arg Ala Tyr Gly Gly Pro Phe Trp Phe Ala Gly Met Leu Gln Leu Ala
 305 310 315 320
 Ile Ser Gly Leu Gln Phe Ala Ser Pro Tyr Leu Met Gln Glu Leu Met
 325 330 335
 Ala Val Ile Ala Phe Asp Gly Pro Leu Trp Lys Gly Phe Leu Leu Thr
 340 345 350
 Phe Gly Leu Phe Gly Ala Ser Leu Leu Leu Gly Leu Phe Asn Gly Gln
 355 360 365
 Tyr Leu Phe Tyr Thr Phe Leu Ser Gly Phe Arg Ile Arg Thr Gly Leu
 370 375 380
 Ile Ser Ala Ile Tyr Arg Lys Ala Leu Arg Ile Ser Ser Ala Ala Lys
 385 390 395 400
 Lys Asp Thr Thr Val Gly Glu Ile Val Asn Leu Met Ala Val Asp Ala
 405 410 415
 Gln Lys Phe Phe Glu Leu Thr Ser Tyr Leu His Ile Leu Trp Ser Ala
 420 425 430

Leu Leu Ile Ile Gly Leu Cys Val Phe Leu Leu Tyr Asp Ile Leu Gly
 435 440 445
 Pro Ala Val Phe Ala Gly Leu Gly Val Met Ile Leu Met Thr Pro Val
 450 455 460
 Ser Gly Val Val Ala Ala Lys Leu Lys Thr His Gln Val Ala Gln Met
 465 470 475 480
 Lys Leu Lys Asp Glu Arg Val Lys Lys Met Asn Glu Ile Leu Gly Gly
 485 490 495
 Ile Lys Val Leu Lys Leu Tyr Ala Trp Glu Pro Ser Phe Gln Asp Ser
 500 505 510
 Ile Leu Asn Val Arg Asp Glu Glu Val Gly Ile Leu Lys Lys Met Ala
 515 520 525
 Tyr Tyr Gly Ala Gly Ile Phe Phe Thr Phe Thr Ile Ala Pro Phe Leu
 530 535 540
 Val Thr Leu Val Ser Phe Ala Val Tyr Val Leu Ile Asp Glu Asn Asn
 545 550 555 560
 Val Leu Asp Pro Gln Thr Ala Phe Val Ser Leu Ala Leu Phe Asn Ile
 565 570 575
 Met Arg Phe Pro Leu Gly Met Phe Pro Met Val Val Thr Phe Ser Met
 580 585 590
 Gln Ala Trp Val Ser Ile Lys Arg Ile Asp Lys Phe Leu Asn Ser Ala
 595 600 605
 Glu Leu Asp Pro Asn Asn Val Thr His Asn Lys Ser Asp Glu Ala Leu
 610 615 620
 Thr Ile Lys Asp Gly Thr Phe Ser Trp Gly Asp Glu Thr Pro Thr Leu
 625 630 635 640
 Lys Asn Ile Asn Leu Ser Leu Arg Lys Gly Gln Leu Ser Ala Ile Val
 645 650 655
 Gly Thr Val Gly Thr Gly Lys Ser Ser Leu Ile Ser Ala Leu Leu Gly
 660 665 670
 Glu Met Glu Lys Ile Ser Gly His Val Asn Thr Asp Gly Ser Ile Ala
 675 680 685
 Tyr Val Pro Gln Gln Ala Trp Ile Gln Asn Ala Thr Leu Arg Asp Asn
 690 695 700
 Ile Leu Phe Gly Lys Ala Phe Asp Gln Arg Lys Tyr Asp Asn Val Ile
 705 710 715 720
 Glu Cys Cys Ala Leu Arg Pro Asp Leu Glu Met Leu Pro Gly Gly Asp
 725 730 735

Ser Thr Glu Ile Gly Glu Lys Gly Ile Asn Leu Ser Gly Gly Gln Lys
 740 745 750
 Gln Arg Val Ala Leu Ala Arg Ala Val Tyr Ala Asp Ala Glu Val Tyr
 755 760 765
 Leu Phe Asp Asp Pro Leu Ser Ala Val Asp Ala His Val Gly Lys His
 770 775 780
 Ile Phe Glu Lys Val Ile Gly Pro Ser Gly Met Leu Val Gly Lys Ser
 785 790 795 800
 Arg Leu Leu Val Thr His Gly Ile Ser Phe Leu Pro Phe Val Glu Asn
 805 810 815
 Ile Leu Val Leu Lys Asp Gly Glu Ile Ser Glu Ser Gly Thr Tyr Gln
 820 825 830
 Glu Leu Ile Asp Gln Lys Gly Ala Phe Ala Glu Phe Leu Ser Gln His
 835 840 845
 Ile Gln Glu Leu Asp Asp Glu Asp Glu Glu Ile Ser Leu Ile Gln Glu
 850 855 860
 Thr Leu Asn Asp Gly Val Val Asn Asn Val Ile Gln Arg Ala Leu Ser
 865 870 875 880
 Val Arg Ser Asn Arg Ser Asn Gly Ser Asp Gly Ser Thr Arg Lys Lys
 885 890 895
 Pro Ile Ser Arg Gln Val Ser Lys Gln Ser Val His Ser Lys Thr Val
 900 905 910
 Thr Thr Val Pro Gly Arg Ala Asn Leu Ile Gly Val Glu Glu Ser Ala
 915 920 925
 Thr Gly Ala Val Thr Trp Leu Val Tyr Lys Lys Tyr Ile Gln Ser Ile
 930 935 940
 Gly Phe Lys Phe Gly Phe Gly Ser Val Leu Phe Thr Ala Ile Asn Gln
 945 950 955 960
 Gly Ser Gly Ile Phe Ser Asn Leu Trp Leu Thr Asp Trp Ser Glu Asp
 965 970 975
 Pro Asp Ala Ala Thr Asp Pro Ser Val Arg Asp Lys Tyr Leu Gly Val
 980 985 990
 Tyr Gly Ala Leu Gly Gly Ala Gln Ser Ile Ala Leu Phe Val Ala Ala
 995 1000 1005
 Leu Leu Ile Ser Leu Gly Cys Leu Lys Ala Ala Lys Glu Ser His Asn
 1010 1015 1020
 Lys Leu Leu Glu Ser Cys Leu Arg Met Pro Met Ser Phe Phe Asp Thr
 1025 1030 1035 1040

Thr Pro Leu Gly Arg Ile Ile Asn Arg Phe Ser Lys Asp Val Asp Val
 1045 1050 1055
 Val Asp Asn Val Leu Pro Val Thr Ile Arg Ala Trp Leu Leu Phe Leu
 1060 1065 1070
 Phe Asn Val Phe Gly Val Phe Ile Val Ile Gly Thr Ser Thr Pro Ile
 1075 1080 1085
 Phe Leu Ala Val Val Pro Pro Leu Met Val Ile Tyr Tyr Phe Val Gln
 1090 1095 1100
 Arg Phe Tyr Ile Asp Thr Ser Arg Gln Leu Lys Arg Leu Glu Ser Val
 1105 1110 1115 1120
 Thr Arg Ser Pro Ile Tyr Ser His Phe Gly Glu Ser Ile Gly Gly Gln
 1125 1130 1135
 Ser Thr Ile Arg Ala Tyr Gly Gln Gln Asp Arg Phe Thr Gln Glu Ser
 1140 1145 1150
 Glu Arg Arg Val Asp Tyr Asn Gln Leu Val Ser Tyr Pro Thr Ile Val
 1155 1160 1165
 Ala Asn Arg Trp Leu Ala Val Arg Leu Glu Leu Ile Gly Ser Cys Val
 1170 1175 1180
 Ile Leu Phe Ala Ala Leu Phe Ala Ile Leu Ala Arg Asp Thr Ile Gly
 1185 1190 1195 1200
 Gln Ala Thr Val Gly Val Ser Ile Ser Tyr Ala Leu Gln Ile Ser His
 1205 1210 1215
 Tyr Leu Ser Phe Leu Val Arg Met Thr Ser Glu Val Glu Thr Asn Ile
 1220 1225 1230
 Val Ala Val Glu Arg Leu Glu Glu Tyr Thr Val Leu Pro Arg Glu Ala
 1235 1240 1245
 Glu Trp Gln Lys Gly Thr Val Asp Lys Ala Trp Pro Val Glu Gly Lys
 1250 1255 1260
 Val Glu Phe Lys Asp Tyr Gln Ile Arg Tyr Arg Glu Gly Leu Asp Leu
 1265 1270 1275 1280
 Val Ile Arg Gly Ile Ser Leu Asn Val Arg Gly Gly Glu Lys Ile Gly
 1285 1290 1295
 Ile Val Gly Arg Thr Gly Ala Gly Lys Ser Ser Leu Thr Leu Gly Leu
 1300 1305 1310
 Phe Arg Ile Val Glu Ala Ala Gly Gly Gln Ile Ile Asp Gly Leu
 1315 1320 1325
 Asp Ile Ser Lys Met Gly Leu His Gln Leu Arg Gly Arg Leu Thr Ile
 1330 1335 1340

Ile Pro Gln Asp Pro Val Leu Phe Ser Gly Thr Leu Arg Ala Asn Val
 1345 1350 1355 1360

 Asp Pro Phe Lys Ser Tyr Ser Asp Asp Gln Val Trp Lys Ala Leu Glu
 1365 1370 1375

 Leu Ser His Leu Lys Thr Phe Val Lys Gly Leu Ser Ala Gly Leu Asp
 1380 1385 1390

 His Glu Ile Ala Glu Asn Gly Glu Asn Leu Ser Val Gly Gln Arg Gln
 1395 1400 1405

 Leu Ile Cys Leu Ala Arg Ala Val Leu Arg Lys Thr Lys Val Leu Ile
 1410 1415 1420

 Leu Asp Glu Ala Thr Ala Ala Val Asp Leu Glu Thr Asp Asp Leu Ile
 1425 1430 1435 1440

 Gln Lys Thr Ile Arg Thr Glu Phe Ala Asp Cys Thr Ile Leu Thr Ile
 1445 1450 1455

 Ala His Arg Leu Asn Thr Ile Leu Asp Ser Asp Arg Val Leu Val Leu
 1460 1465 1470

 Asp Lys Gly Leu Val Ala Glu Cys Asp Ser Pro Gln Asn Leu Leu Ala
 1475 1480 1485

 Asn Arg Glu Ser Ile Phe Tyr Gly Met Ala Lys Asn Ala Gly Ile Val
 1490 1495 1500

 Ser
 1505

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Val Trp Asp Val Asp Asn Pro Asn Leu Thr Phe Cys Phe Gln Arg Val
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Ile Leu Gln Trp Val Pro Cys Leu Phe Leu Phe Val Phe Ser Ile Tyr
 35 40 45

Asp Ile Phe Lys Ile Thr Glu Ser Lys Tyr Arg Asp Ile Pro Trp Asn
 50 55 60

Trp Tyr Asn Leu Ser Lys Met Leu Val Ile Phe Leu Leu Met Cys Met
 65 70 75 80

Cys Trp Ile Asp Leu Gly Met Val Val Gly Tyr Gln Asp Glu Gln Gly
 85 90 95

Leu Tyr Asp Val Gln Ile Leu Thr Ala Val Phe Asn Ala Leu Ala Tyr
 100 105 110
 Ile Asp Leu Leu Val Leu Leu Phe Phe Met Arg Lys Tyr Gly Val Arg
 115 120 125
 Thr Ser Gly Thr Met Phe Met Phe Trp Phe Leu Arg Met Phe Phe Gly
 130 135 140
 Ile Ile Gln Leu Arg Thr Glu Val Met Glu Asn Asp Lys Arg Pro Asn
 145 150 155 160
 Ala Ile Gly Ser Gly Asp Thr Val Asp Phe Trp Glu Tyr Gln Tyr Val
 165 170 175
 Ser Tyr Ile Leu Gln Tyr Ser Leu Ile Cys Leu Met Leu Val Leu Glu
 180 185 190
 Leu Phe Pro Asp Lys Glu Pro Thr Phe Ser Tyr Tyr Pro Lys Ser Lys
 195 200 205
 Asn Pro Asn Pro Glu Leu Lys Ser Ser Phe Phe Ala Lys Leu Leu Phe
 210 215 220
 Leu Tyr Phe Asp Thr Phe Ala Trp Lys Gly Phe Arg Lys Pro Leu Thr
 225 230 235 240
 Met Glu Glu Met Tyr Asp Ile Asn Pro Gln Asp Thr Ser Arg Glu Leu
 245 250 255
 Val Pro Pro Phe Asp Lys Tyr Trp Asp Met Ser Val Ala Asn Gly Arg
 260 265 270
 Lys Lys Gln Ile Ala Ala Asp Lys Lys Ala Gly Lys Thr Asn Ile Glu
 275 280 285
 Tyr Lys Pro His Ser Glu Thr Asn Gly Ser Ser Leu Tyr Ala Met Val
 290 295 300
 Arg Ala Tyr Gly Ala Pro Phe Trp Phe Ala Gly Met Leu Gln Leu Ala
 305 310 315 320
 Ile Ser Gly Leu Gln Phe Ala Ser Pro Tyr Leu Met Gln Glu Met Met
 325 330 335
 Ala Val Ile Ala Leu Asp Gly Pro Val Trp Lys Gly Leu Leu Leu Thr
 340 345 350
 Phe Ala Leu Phe Ala Ala Ser Leu Leu Leu Ala Leu Leu Asn Gly Gln
 355 360 365
 Tyr Tyr Tyr Asn Thr Phe Leu Ser Gly Phe Arg Ile Arg Thr Gly Leu
 370 375 380
 Val Ser Ala Ile Tyr Arg Lys Ala Leu Arg Ile Ser Ser Ala Ala Lys
 385 390 395 400

Lys Asp Thr Thr Val Gly Glu Ile Val Asn Leu Met Ala Val Asp Ala
 405 410 415
 Gln Arg Phe Phe Glu Leu Thr Ser Tyr Met His Ile Leu Trp Ser Gly
 420 425 430
 Val Leu Ile Ile Ala Leu Cys Val Tyr Leu Leu Tyr Asp Ile Leu Gly
 435 440 445
 Ala Ala Val Phe Ala Gly Leu Gly Val Met Ile Leu Ile Thr Pro Val
 450 455 460
 Ser Gly Val Ile Ala Thr Lys Met Arg Asp Ala Gln Val Ala Gln Met
 465 470 475 480
 Lys Ile Lys Asp Asp Arg Val Lys Lys Met Asn Glu Ile Leu Gly Gly
 485 490 495
 Ile Lys Val Leu Lys Leu Tyr Ala Trp Glu Pro Ser Phe Gln Asp Asn
 500 505 510
 Ile Leu Thr Val Arg Lys Glu Glu Ile Gly Ile Leu Lys Arg Met Ala
 515 520 525
 Tyr Tyr Gly Ala Gly Ile Tyr Phe Thr Phe Thr Ile Ala Pro Phe Leu
 530 535 540
 Val Thr Leu Val Ser Phe Ala Val Tyr Val Leu Met Asp Glu Glu Asn
 545 550 555 560
 Ile Leu Asp Pro Gln Thr Ala Phe Val Ser Leu Ala Leu Phe Asn Ile
 565 570 575
 Leu Arg Phe Pro Leu Gly Met Leu Pro Met Met Val Thr Phe Ser Met
 580 585 590
 Gln Ala Trp Val Ser Val Lys Arg Ile Asp Lys Phe Leu Asn Ser Ala
 595 600 605
 Glu Leu Asp Pro Ser Asn Val Ser Asn Asn Lys Ser Asp Glu Ala Leu
 610 615 620
 Thr Ile Lys Asp Gly Thr Phe Ser Trp Gly Asp Glu Thr Pro Thr Leu
 625 630 635 640
 Lys Asn Ile Asn Leu Ser Leu Arg Lys Gly Gln Leu Ser Ala Ile Val
 645 650 655
 Gly Thr Val Gly Thr Gly Lys Ser Ser Leu Ile Ser Ala Leu Leu Gly
 660 665 670
 Glu Met Glu Lys Ile Ser Gly His Val Asn Thr Asp Gly Ser Ile Ala
 675 680 685
 Tyr Val Pro Gln Gln Ala Trp Ile Gln Asn Ala Thr Leu Arg Asp Asn
 690 695 700

Ile Leu Phe Gly Lys Ala Phe Asp Gln Arg Lys Tyr Asp Asn Val Ile
 705 710 715 720
 Glu Cys Cys Ala Leu Arg Pro Asp Leu Glu Met Leu Pro Gly Gly Asp
 725 730 735
 Ser Thr Glu Ile Gly Glu Lys Gly Ile Asn Leu Ser Gly Gly Gln Lys
 740 745 750
 Gln Arg Val Ala Leu Ala Arg Ala Val Tyr Ala Asp Ala Glu Val Tyr
 755 760 765
 Leu Phe Asp Asp Pro Leu Ser Ala Val Asp Ala His Val Gly Lys His
 770 775 780
 Ile Phe Glu Lys Val Ile Gly Pro Ser Gly Met Leu Val Gly Lys Ser
 785 790 795 800
 Arg Leu Leu Val Thr His Gly Ile Ser Tyr Leu Pro Phe Val Glu Asn
 805 810 815
 Ile Phe Val Val Lys Asp Gly Glu Ile Ser Glu Ser Gly Ser Tyr Gln
 820 825 830
 Gln Leu Leu Asp Gln Lys Gly Ala Phe Ala Glu Phe Leu Thr Gln His
 835 840 845
 Ile Gln Glu Leu Asp Glu Ala Asp Glu Asp Glu Ile Lys Leu Ile Gln
 850 855 860
 Glu Thr Leu Lys Asp Glu Thr Ala Gln Arg Ile Val Glu Arg Ser Leu
 865 870 875 880
 Ser Val Arg Ser Gly Arg Ser Gly Gly Ser Asn Ser Ser Ile Arg Lys
 885 890 895
 Lys Arg Ile Ser Arg Gln Glu Ser Lys Ala Ser Ala Lys Lys Glu Asp
 900 905 910
 Pro Ile Ile Gln Asn Leu Asp Lys Ala Thr Leu Ile Glu Lys Glu Glu
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 Ser Ala Thr Gly Ala Val Thr Trp Ala Val Tyr Lys Lys Tyr Val Thr
 930 935 940
 Ala Ile Gly Phe Gln Phe Gly Phe Trp Ser Val Val Phe Ser Ala Ile
 945 950 955 960
 Asn Gln Gly Ser Gly Ile Tyr Ser Ser Met Trp Leu Thr Asp Trp Ser
 965 970 975
 Glu Asp Pro Glu Ala Ile Thr Asp Thr Ser Val Arg Asp Met Tyr Leu
 980 985 990
 Gly Val Tyr Gly Ala Leu Gly Gly Val Gln Ser Ile Ala Leu Phe Ile
 995 1000 1005

Gly Ser Val Leu Leu Ala Leu Gly Cys Leu Lys Ala Ala Glu Glu Ser
 1010 1015 1020

His Asn Lys Leu Leu Glu Ser Ser Met His Met Pro Met Ser Phe Phe
 1025 1030 1035 1040

Asp Thr Thr Pro Leu Gly Arg Ile Ile Asn Arg Phe Ser Lys Asp Val
 1045 1050 1055

Asp Val Val Asp Asn Ile Leu Pro Ala Thr Ile Arg Ala Trp Leu Leu
 1060 1065 1070

Met Leu Phe Ser Val Ile Gly Val Phe Val Val Ile Gly Ile Ser Thr
 1075 1080 1085

Pro Ile Phe Leu Ala Ile Val Pro Pro Leu Met Ile Ile Tyr Tyr Phe
 1090 1095 1100

Val Gln Arg Phe Tyr Ile Glu Thr Ser Arg Gln Leu Lys Arg Leu Glu
 1105 1110 1115 1120

Ser Val Thr Arg Ser Pro Ile Tyr Ser His Phe Gly Glu Ser Ile Gly
 1125 1130 1135

Gly Gln Ser Thr Ile Arg Ala Tyr Ala Gln Gln Glu Arg Phe Ile Arg
 1140 1145 1150

Glu Ser Glu His Arg Val Asp Tyr Asn Gln Leu Val Thr Tyr Pro Thr
 1155 1160 1165

Ile Leu Ala Asn Arg Trp Leu Gly Val Arg Leu Glu Ile Ile Gly Ser
 1170 1175 1180

Leu Val Ile Leu Phe Ala Ala Leu Phe Ala Ile Leu Ala Arg Asp Thr
 1185 1190 1195 1200

Ile Gly Gln Ala Thr Val Gly Leu Ser Ile Ser Tyr Ala Leu Gln Ile
 1205 1210 1215

Ser Asn Val Leu Ser Phe Leu Val Arg Met Thr Ala Glu Val Glu Thr
 1220 1225 1230

Asn Ile Val Ala Ile Glu Arg Leu Glu Glu Tyr Thr Val Leu Pro Arg
 1235 1240 1245

Glu Ala Glu Trp Gln Lys Gly Thr Val Asp Lys Ala Trp Pro Val Glu
 1250 1255 1260

Gly Lys Val Glu Phe Lys Asp Tyr Gln Ile Arg Tyr Arg Glu Gly Leu
 1265 1270 1275 1280

Asp Leu Val Ile Arg Gly Ile Ser Leu Asn Val Arg Gly Gly Glu Lys
 1285 1290 1295

Ile Gly Ile Val Gly Arg Thr Gly Ala Gly Lys Ser Ser Leu Thr Leu
 1300 1305 1310

Gly Leu Phe Arg Ile Val Glu Ala Ala Gly Gly Gln Ile Ile Ile Asp
 1315 1320 1325
 Gly Leu Asp Ile Ser Lys Met Gly Leu His Gln Leu Arg Ser Arg Leu
 1330 1335 1340
 Thr Ile Ile Pro Gln Asp Pro Val Leu Phe Ser Gly Thr Leu Arg Ala
 1345 1350 1355 1360
 Asn Val Asp Pro Phe Lys Ser Tyr Ser Asp Asp Gln Val Trp Lys Ala
 1365 1370 1375
 Leu Glu Leu Ser His Leu Lys Thr Phe Val Lys Gly Leu Thr Ala Gly
 1380 1385 1390
 Leu Asp His Glu Ile Ala Glu Asn Gly Glu Asn Leu Ser Val Gly Gln
 1395 1400 1405
 Arg Gln Leu Val Cys Leu Ala Arg Ala Ile Leu Arg Lys Thr Lys Val
 1410 1415 1420
 Leu Ile Leu Asp Glu Ala Thr Ala Ala Val Asp Leu Glu Thr Asp Asp
 1425 1430 1435 1440
 Leu Ile Gln Lys Thr Ile Arg Thr Glu Phe Ala Asp Cys Thr Ile Leu
 1445 1450 1455
 Thr Ile Ala His Arg Leu Asn Thr Ile Leu Asp Ser Asp Arg Val Leu
 1460 1465 1470
 Val Leu Asp Lys Gly Leu Val Ala Glu Cys Asp Ser Pro Gln Asn Leu
 1475 1480 1485
 Leu Ala Asn Arg Asp Ser Ile Phe His Ser Met Ala Lys Asn Ala Gly
 1490 1495 1500
 Ile Val Ser
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 <212> PRT
 <213> Homo sapiens

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 Phe Gln Asn Thr Val Leu Val Trp Val Pro Cys Phe Tyr Leu Trp Ala
 35 40 45
 Cys Phe Pro Phe Tyr Phe Leu Tyr Leu Ser Arg His Asp Arg Gly Tyr
 50 55 60

Ile Gln Met Thr Pro Leu Asn Lys Thr Lys Thr Ala Leu Gly Phe Leu
 65 70 75 80

Leu Trp Ile Val Cys Trp Ala Asp Leu Phe Tyr Ser Phe Trp Glu Arg
 85 90 95

Ser Arg Gly Ile Phe Leu Ala Pro Val Phe Leu Val Ser Pro Thr Leu
 100 105 110

Leu Gly Ile Thr Thr Leu Leu Ala Thr Phe Leu Ile Gln Leu Glu Arg
 115 120 125

Arg Lys Gly Val Gln Ser Ser Gly Ile Met Leu Thr Phe Trp Leu Val
 130 135 140

Ala Leu Val Cys Ala Leu Ala Ile Leu Arg Ser Lys Ile Met Thr Ala
 145 150 155 160

Leu Lys Glu Asp Ala Gln Val Asp Leu Phe Arg Asp Ile Thr Phe Tyr
 165 170 175

Val Tyr Phe Ser Leu Leu Leu Ile Gln Leu Val Leu Ser Cys Phe Ser
 180 185 190

Asp Arg Ser Pro Leu Phe Ser Glu Thr Ile His Asp Pro Asn Pro Cys
 195 200 205

Pro Glu Ser Ser Ala Ser Phe Leu Ser Arg Ile Thr Phe Trp Trp Ile
 210 215 220

Thr Gly Leu Ile Val Arg Gly Tyr Arg Gln Pro Leu Glu Gly Ser Asp
 225 230 235 240

Leu Trp Ser Leu Asn Lys Glu Asp Thr Ser Glu Gln Val Val Pro Val
 245 250 255

Leu Val Lys Asn Trp Lys Lys Glu Cys Ala Lys Thr Arg Lys Gln Pro
 260 265 270

Val Lys Val Val Tyr Ser Ser Lys Asp Pro Ala Gln Pro Lys Glu Ser
 275 280 285

Ser Lys Val Asp Ala Asn Glu Glu Val Glu Ala Leu Ile Val Lys Ser
 290 295 300

Pro Gln Lys Glu Trp Asn Pro Ser Leu Phe Lys Val Leu Tyr Lys Thr
 305 310 315 320

Phe Gly Pro Tyr Phe Leu Met Ser Phe Phe Phe Lys Ala Ile His Asp
 325 330 335

Leu Met Met Phe Ser Gly Pro Gln Ile Leu Lys Leu Leu Ile Lys Phe
 340 345 350

Val Asn Asp Thr Lys Ala Pro Asp Trp Gln Gly Tyr Phe Tyr Thr Val
 355 360 365

Leu Leu Phe Val Thr Ala Cys Leu Gln Thr Leu Val Leu His Gln Tyr
 370 375 380
 Phe His Ile Cys Phe Val Ser Gly Met Arg Ile Lys Thr Ala Val Ile
 385 390 395 400
 Gly Ala Val Tyr Arg Lys Ala Leu Val Ile Thr Asn Ser Ala Arg Lys
 405 410 415
 Ser Ser Thr Val Gly Glu Ile Val Asn Leu Met Ser Val Asp Ala Gln
 420 425 430
 Arg Phe Met Asp Leu Ala Thr Tyr Ile Asn Met Ile Trp Ser Ala Pro
 435 440 445
 Leu Gln Val Ile Leu Ala Leu Tyr Leu Leu Trp Leu Asn Leu Gly Pro
 450 455 460
 Ser Val Leu Ala Gly Val Ala Val Met Val Leu Met Val Pro Val Asn
 465 470 475 480
 Ala Val Met Ala Met Lys Thr Lys Thr Tyr Gln Val Ala His Met Lys
 485 490 495
 Ser Lys Asp Asn Arg Ile Lys Leu Met Asn Glu Ile Leu Asn Gly Ile
 500 505 510
 Lys Val Leu Lys Leu Tyr Ala Trp Glu Leu Ala Phe Lys Asp Lys Val
 515 520 525
 Leu Ala Ile Arg Gln Glu Glu Leu Lys Val Leu Lys Lys Ser Ala Tyr
 530 535 540
 Leu Ser Ala Val Gly Thr Phe Thr Trp Val Cys Thr Pro Phe Leu Val
 545 550 555 560
 Ala Leu Cys Thr Phe Ala Val Tyr Val Thr Ile Asp Glu Asn Asn Ile
 565 570 575
 Leu Asp Ala Gln Thr Ala Phe Val Ser Leu Ala Leu Phe Asn Ile Leu
 580 585 590
 Arg Phe Pro Leu Asn Ile Leu Pro Met Val Ile Ser Ser Ile Val Gln
 595 600 605
 Ala Ser Val Ser Leu Lys Arg Leu Arg Ile Phe Leu Ser His Glu Glu
 610 615 620
 Leu Glu Pro Asp Ser Ile Glu Arg Arg Pro Val Lys Asp Gly Gly Gly
 625 630 635 640
 Thr Asn Ser Ile Thr Val Arg Asn Ala Thr Phe Thr Trp Ala Arg Ser
 645 650 655
 Asp Pro Pro Thr Leu Asn Gly Ile Thr Phe Ser Ile Pro Glu Gly Ala
 660 665 670

Leu Val Ala Val Val Gly Gln Val Gly Cys Gly Lys Ser Ser Leu Leu
 675 680 685

Ser Ala Leu Leu Ala Glu Met Asp Lys Val Glu Gly His Val Ala Ile
 690 695 700

Lys Gly Ser Val Ala Tyr Val Pro Gln Gln Ala Trp Ile Gln Asn Asp
 705 710 715 720

Ser Leu Arg Glu Asn Ile Leu Phe Gly Cys Gln Leu Glu Glu Pro Tyr
 725 730 735

Tyr Arg Ser Val Ile Gln Ala Cys Ala Leu Leu Pro Asp Leu Glu Ile
 740 745 750

Leu Pro Ser Gly Asp Arg Thr Glu Ile Gly Glu Lys Gly Val Asn Leu
 755 760 765

Ser Gly Gly Gln Lys Gln Arg Val Ser Leu Ala Arg Ala Val Tyr Ser
 770 775 780

Asn Ala Asp Ile Tyr Leu Phe Asp Asp Pro Leu Ser Ala Val Asp Ala
 785 790 795 800

His Val Gly Lys His Ile Phe Glu Asn Val Ile Gly Pro Lys Gly Met
 805 810 815

Leu Lys Asn Lys Thr Arg Ile Leu Val Thr His Ser Met Ser Tyr Leu
 820 825 830

Pro Gln Val Asp Val Ile Ile Val Met Ser Gly Gly Lys Ile Ser Glu
 835 840 845

Met Gly Ser Tyr Gln Glu Leu Leu Ala Arg Asp Gly Ala Phe Ala Glu
 850 855 860

Phe Leu Arg Thr Tyr Ala Ser Thr Glu Gln Glu Gln Asp Ala Glu Glu
 865 870 875 880

Asn Gly Val Thr Gly Val Ser Gly Pro Gly Lys Glu Ala Lys Gln Met
 885 890 895

Glu Asn Gly Met Leu Val Thr Asp Ser Ala Gly Lys Gln Leu Gln Arg
 900 905 910

Gln Leu Ser Ser Ser Ser Tyr Ser Gly Asp Ile Ser Arg His His
 915 920 925

Asn Ser Thr Ala Glu Leu Gln Lys Ala Glu Ala Lys Lys Glu Glu Thr
 930 935 940

Trp Lys Leu Met Glu Ala Asp Lys Ala Gln Thr Gly Gln Val Lys Leu
 945 950 955 960

Ser Val Tyr Trp Asp Tyr Met Lys Ala Ile Gly Leu Phe Ile Ser Phe
 965 970 975

Leu Ser Ile Phe Leu Phe Met Cys Asn His Val Ser Ala Leu Ala Ser
 980 985 990
 Asn Tyr Trp Leu Ser Leu Trp Thr Asp Asp Pro Ile Val Asn Gly Thr
 995 1000 1005
 Gln Glu His Thr Lys Val Arg Leu Ser Val Tyr Gly Ala Leu Gly Ile
 1010 1015 1020
 Ser Gln Gly Ile Ala Val Phe Gly Tyr Ser Met Ala Val Ser Ile Gly
 1025 1030 1035 1040
 Gly Ile Leu Ala Ser Arg Cys Leu His Val Asp Leu Leu His Ser Ile
 1045 1050 1055
 Leu Arg Ser Pro Met Ser Phe Phe Glu Arg Thr Pro Ser Gly Asn Leu
 1060 1065 1070
 Val Asn Arg Phe Ser Lys Glu Leu Asp Thr Val Asp Ser Met Ile Pro
 1075 1080 1085
 Glu Val Ile Lys Met Phe Met Gly Ser Leu Phe Asn Val Ile Gly Ala
 1090 1095 1100
 Cys Ile Val Ile Leu Leu Ala Thr Pro Ile Ala Ala Ile Ile Ile Pro
 1105 1110 1115 1120
 Pro Leu Gly Leu Ile Tyr Phe Phe Val Gln Arg Phe Tyr Val Ala Ser
 1125 1130 1135
 Ser Arg Gln Leu Lys Arg Leu Glu Ser Val Ser Arg Ser Pro Val Tyr
 1140 1145 1150
 Ser His Phe Asn Glu Thr Leu Leu Gly Val Ser Val Ile Arg Ala Phe
 1155 1160 1165
 Glu Glu Gln Glu Arg Phe Ile His Gln Ser Asp Leu Lys Val Asp Glu
 1170 1175 1180
 Asn Gln Lys Ala Tyr Tyr Pro Ser Ile Val Ala Asn Arg Trp Leu Ala
 1185 1190 1195 1200
 Val Arg Leu Glu Cys Val Gly Asn Cys Ile Val Leu Phe Ala Ala Leu
 1205 1210 1215
 Phe Ala Val Ile Ser Arg His Ser Leu Ser Ala Gly Leu Val Gly Leu
 1220 1225 1230
 Ser Val Ser Tyr Ser Leu Gln Val Thr Thr Tyr Leu Asn Trp Leu Val
 1235 1240 1245
 Arg Met Ser Ser Glu Met Glu Thr Asn Ile Val Ala Val Glu Arg Leu
 1250 1255 1260
 Lys Glu Tyr Ser Glu Thr Glu Lys Glu Ala Pro Trp Gln Ile Gln Glu
 1265 1270 1275 1280

Thr Ala Pro Pro Ser Ser Trp Pro Gln Val Gly Arg Val Glu Phe Arg
 1285 1290 1295
 Asn Tyr Cys Leu Arg Tyr Arg Glu Asp Leu Asp Phe Val Leu Arg His
 1300 1305 1310
 Ile Asn Val Thr Ile Asn Gly Gly Glu Lys Val Gly Ile Val Gly Arg
 1315 1320 1325
 Thr Gly Ala Gly Lys Ser Ser Leu Thr Leu Gly Leu Phe Arg Ile Asn
 1330 1335 1340
 Glu Ser Ala Glu Gly Glu Ile Ile Asp Gly Ile Asn Ile Ala Lys
 1345 1350 1355 1360
 Ile Gly Leu His Asp Leu Arg Phe Lys Ile Thr Ile Ile Pro Gln Asp
 1365 1370 1375
 Pro Val Leu Phe Ser Gly Ser Leu Arg Met Asn Leu Asp Pro Phe Ser
 1380 1385 1390
 Gln Tyr Ser Asp Glu Glu Val Trp Thr Ser Leu Glu Leu Ala His Leu
 1395 1400 1405
 Lys Asp Phe Val Ser Ala Leu Pro Asp Lys Leu Asp His Glu Cys Ala
 1410 1415 1420
 Glu Gly Gly Glu Asn Leu Ser Val Gly Gln Arg Gln Leu Val Cys Leu
 1425 1430 1435 1440
 Ala Arg Ala Leu Leu Arg Lys Thr Lys Ile Leu Val Leu Asp Glu Ala
 1445 1450 1455
 Thr Ala Ala Val Asp Leu Glu Thr Asp Asp Leu Ile Gln Ser Thr Ile
 1460 1465 1470
 Arg Thr Gln Phe Glu Asp Cys Thr Val Leu Thr Ile Ala His Arg Leu
 1475 1480 1485
 Asn Thr Ile Met Asp Tyr Thr Arg Val Ile Val Leu Asp Lys Gly Glu
 1490 1495 1500
 Ile Gln Glu Tyr Gly Ala Pro Ser Asp Leu Leu Gln Gln Arg Gly Leu
 1505 1510 1515 1520
 Phe Tyr Ser Met Ala Lys Asp Ala Gly Leu Val
 1525 1530
 <210> 7
 <211> 49
 <212> PRT
 <213> Drosophila melanogaster
 <400> 7
 Val Ser Leu Val Thr Phe Ala Thr Tyr Val Leu Thr Ser Glu Ala Asn
 1 5 10 15

Gln Leu Ser Val Glu Lys Val Leu Val Ser Ile Ala Leu Phe Asp Leu
 20 25 30

Met Lys Leu Pro Leu Thr Ile Leu Pro Met Leu Ser Val Asp Ile Ala
 35 40 45

Glu

<210> 8
 <211> 49
 <212> PRT
 <213> Drosophila melanogaster

<400> 8
 Val Ser Leu Val Thr Phe Ala Thr Tyr Val Leu Ile Asp Glu Asn Asn
 1 5 10 15

Val Leu Asp Ala Thr Lys Thr Phe Val Ser Leu Ser Leu Phe Asn Ile
 20 25 30

Leu Arg Phe Pro Leu Thr Met Leu Pro Met Leu Ile Thr Asn Leu Val
 35 40 45

Gln

<210> 9
 <211> 73
 <212> PRT
 <213> Drosophila melanogaster

<400> 9
 Ala Thr Asn Phe Phe Ser Ser Leu Ala Ile Ser Leu Gly Cys Leu Lys
 1 5 10 15

Cys Ser Gln Leu Leu His Gln Thr Leu Leu Tyr Tyr Asn Leu Arg Trp
 20 25 30

Pro Met Glu Leu Phe Asp Thr Thr Pro Leu Gly Arg Ile Val Asn Arg
 35 40 45

Phe Ser Lys Asp Ile Asp Thr Ile Asp Asn Val Leu Pro Phe Asn Ile
 50 55 60

Arg Val Val Ile Gly Gln Ala Tyr Met
 65 70

<210> 10
 <211> 73
 <212> PRT
 <213> Drosophila melanogaster

<400> 10
 Val Thr Gly Tyr Leu Ser Thr Leu Ile Leu Ser Leu Gly Cys Val Tyr
 1 5 10 15

Ser Ala Arg Tyr Met His Asn Val Leu Leu His Gly Thr Leu Arg Trp
 20 25 30

Pro Met Glu Met Phe Asp Ile Thr Pro Leu Gly Arg Ile Val Asn Arg
 35 40 45

Phe Ser Lys Asp Val Asp Thr Ile Asp Asn Thr Leu Pro Leu Asn Leu
 50 55 60

Arg Val Val Ile Leu Gln Leu Phe Ala
 65 70

<210> 11

<211> 73

<212> PRT

<213> Drosophila melanogaster

<400> 11

Thr Ser Tyr Phe Phe Cys Ser Leu Thr Leu Ala Leu Gly Cys Ile Pro
 1 5 10 15

Cys Ser Lys Val Leu His Glu Thr Leu Leu Ser Tyr Val Phe Arg Trp
 20 25 30

Pro Met Glu Leu Phe Asp Thr Thr Pro Leu Gly Arg Val Val Asn Arg
 35 40 45

Phe Ser Lys Asp Val Asp Thr Ile Asp Asn Val Leu Pro Met Leu Trp
 50 55 60

Arg Met Val Ile Ser Gln Ala Phe Ala
 65 70

<210> 12

<211> 73

<212> PRT

<213> Drosophila melanogaster

<400> 12

Leu Ser Lys Tyr Leu Ser Gly Leu Ala Leu Ala Ile Gly Gly Leu His
 1 5 10 15

Cys Ser Met Asn Val Phe Asn Lys Leu Leu Asn Thr Gly Leu Lys Trp
 20 25 30

Pro Met Glu Leu Phe Asp Thr Thr Pro Leu Gly Arg Ile Leu Ser Arg
 35 40 45

Tyr Ser Lys Asp Val Asp Thr Val Asp Ser Val Leu Pro Ala Ile Thr
 50 55 60

Val Gln Leu Leu Asn Thr Cys Phe Gly
 65 70

<210> 13
 <211> 74
 <212> PRT
 <213> Drosophila melanogaster

<400> 13
 Val Leu Ala Tyr Phe Ala Val Val Ile Val Tyr Leu Gly Gly Phe Gln
 1 5 10 15

Ala Ala Lys Thr Ile His Asn Glu Leu Leu Ala Val Ile Ile Arg Gly
 20 25 30

Ser Val Cys Arg Phe Phe Asp Ile Thr Pro Ile Gly Arg Leu Leu Asn
 35 40 45

Ser Phe Ser Gly Asp Met Asp Val Val Asp Glu Glu Leu Pro Ala Thr
 50 55 60

Met Asp Ser Phe Met Thr Phe Ile Phe Met
 65 70

<210> 14
 <211> 73
 <212> PRT
 <213> Drosophila melanogaster

<400> 14
 Leu Cys Asn Tyr Gly Ala Ala Ile Ser Leu Phe Thr Ala Thr Leu His
 1 5 10 15

Ala Ser Ser Arg Val Phe His Arg Leu Phe Asn Asn Ile Met His Cys
 20 25 30

Pro Ser Glu Phe Phe Asp Thr Thr Pro Lys Gly Arg Ile Leu Asp Arg
 35 40 45

Cys Ser Ser Asp Val Asn Cys Leu Asp Leu Val Met Pro Leu Asn Ile
 50 55 60

Arg Met Val Met Ser Thr Ala Phe Gln
 65 70

<210> 15
 <211> 73
 <212> PRT
 <213> Drosophila melanogaster

<400> 15
 Phe Thr Ser Phe Phe Ser Asp Leu Ala Pro Ala Leu Gly Ser Leu His
 1 5 10 15

Ala Ala Lys Val Leu His Ser Met Leu Leu Glu Asn Val Leu Arg Ala
 20 25 30

Pro Met Thr Met Phe Asp Thr Thr Pro Val Gly Arg Ile Leu Ser Arg
 35 40 45

Phe Ser Lys Asp Val Glu Ser Val Asp Gln Lys Met Pro Gln Val Ile
 50 55 60

Asn Asp Cys Ile Trp Cys Ala Phe Glu
 65 70

<210> 16
 <211> 1538
 <212> PRT
 <213> *Drosophila melanogaster*

<400> 16
 Met Ala Asp Asp Thr Ser Ser Pro Met Asp Arg Phe Cys Gly Ser Thr
 1 5 10 15

Phe Trp Asn Ala Thr Glu Thr Trp Tyr Thr Asn Asp Pro Asp Phe Thr
 20 25 30

Pro Cys Phe Glu Gln Thr Ala Leu Val Trp Thr Pro Cys Ala Phe Tyr
 35 40 45

Trp Ala Phe Val Ile Phe Asp Phe Tyr Tyr Leu Lys Ala Ser Leu Asp
 50 55 60

Arg Asn Ile Pro Trp Asn Lys Leu Asn Val Ser Lys Ala Leu Val Asn
 65 70 75 80

Leu Gly Leu Leu Val Ile Thr Ala Leu Asp Leu Ile Met Ala Leu Val
 85 90 95

Lys Lys Gly Gly Asp Ser Glu Leu Pro Leu Tyr Asp Leu Asp Val Trp
 100 105 110

Gly Pro Ile Ile Lys Phe Ala Thr Phe Leu Leu Leu Phe Ile Phe Ile
 115 120 125

Pro Leu Asn Arg Lys Tyr Gly Val Gln Thr Thr Gly Cys Gln Phe Ile
 130 135 140

Phe Trp Phe Leu Leu Thr Val Leu Ser Ile Pro Arg Cys Arg Thr Glu
 145 150 155 160

Val Arg Leu Asp Ala Glu Arg Gln Lys Ile Leu Asn Ser Gln Gln Pro
 165 170 175

Ser Glu Gln Asp Phe Ser Trp Glu Glu Tyr Gln Phe Val Ser Phe Phe
 180 185 190

Ile Phe Phe Thr Phe Thr Ser Ile Met Leu Ile Leu Asn Cys Phe Ala
 195 200 205

Asp Gly Met Pro Arg Gln Thr Lys Tyr Gln Arg Gly Glu Asn Glu Ile
 210 215 220

Pro Glu Leu Ser Ala Ser Phe Leu Ser Arg Ile Thr Tyr Gln Trp Phe
 225 230 235 240

Asp Lys Met Ala Leu Lys Gly Tyr Arg Asn Pro Leu Glu Glu Lys Asp
 245 250 255

Leu Trp Asp Leu Arg Pro Gln Asp Ser Cys Ser Glu Val Met Pro Ile
 260 265 270

Phe Ala His His Trp Asn Gln Asn Val Arg Lys Asn Tyr Lys Asn Lys
 275 280 285

Ala Arg Val Glu Pro Lys Ala Gln Phe Ser Asn Gly Asn Val Thr Phe
 290 295 300

Glu Asn Pro His Gly Glu Lys Asn Gly Arg Lys Lys Gly Met Ala Ser
 305 310 315 320

Ile Met Pro Pro Ile Tyr Lys Ser Phe Gly Gly Val Phe Leu Phe Gly
 325 330 335

Ala Leu Met Lys Leu Phe Thr Asp Thr Leu Thr Phe Ala Gln Pro Gln
 340 345 350

Val Leu Ser Leu Ile Ile Ser Phe Val Glu Ala Gln Asp Ala Glu Pro
 355 360 365

Glu Trp Lys Gly Ile Leu Tyr Ala Val Leu Leu Phe Val Leu Ala Ala
 370 375 380

Ala Gln Thr Phe Ile Leu Gly Gln Tyr Phe His Arg Met Phe Ile Val
 385 390 395 400

Gly Leu Arg Ile Arg Thr Ala Leu Ile Asn Ala Ile Tyr Arg Lys Ala
 405 410 415

Leu Arg Ile Ser Asn Ser Thr Lys Lys Glu Ser Thr Val Gly Glu Ile
 420 425 430

Val Asn Leu Met Ala Val Asp Ala Gln Arg Phe Met Glu Leu Thr Thr
 435 440 445

Tyr Leu Asn Met Ile Trp Ser Ala Pro Leu Gln Ile Gly Leu Ala Leu
 450 455 460

Tyr Phe Leu Trp Gln Gln Leu Gly Pro Ser Val Leu Ala Gly Leu Ala
 465 470 475 480

Val Met Ile Ile Leu Ile Pro Val Asn Gly Val Ile Ala Ser Arg Ile
 485 490 495

Lys Thr Tyr Gln Ile Arg Gln Met Lys Tyr Lys Asp Glu Arg Val Lys
 500 505 510

Leu Met Asn Glu Val Leu Ser Gly Ile Lys Val Leu Lys Leu Tyr Ala
 515 520 525

Trp Glu Pro Ser Phe Glu Lys Gln Val Leu Asp Ile Arg Asp Lys Glu
 530 535 540

Ile Ala Thr Leu Arg Ser Thr Ala Tyr Leu Asn Ala Gly Thr Ser Phe
 545 550 555 560
 Leu Trp Ser Cys Ala Pro Phe Leu Val Ser Leu Val Thr Phe Ala Thr
 565 570 575
 Tyr Val Leu Thr Ser Glu Ala Asn Gln Leu Ser Val Glu Lys Val Leu
 580 585 590
 Val Ser Ile Ala Leu Phe Asp Leu Met Lys Leu Pro Leu Thr Ile Leu
 595 600 605
 Pro Met Leu Ser Val Asp Ile Ala Glu Thr Gln Val Ser Val Asn Arg
 610 615 620
 Ile Asn Lys Phe Leu Asn Ser Glu Glu Leu Asp Pro Asn Ser Val Leu
 625 630 635 640
 His Asp Ser Ser Lys Pro His Pro Met Ser Ile Glu Asn Gly Glu Phe
 645 650 655
 Ser Trp Gly Asp Glu Ile Thr Leu Arg Asn Ile Asn Ile Glu Val Lys
 660 665 670
 Lys Gly Ser Leu Val Ala Leu Val Gly Thr Val Gly Ser Gly Lys Ser
 675 680 685
 Ser Val Val Gln Ala Phe Leu Gly Glu Met Glu Lys Leu Ala Gly Val
 690 695 700
 Val Asn Thr Val Gly Lys Leu Ala Tyr Val Pro Gln Gln Ala Trp Ile
 705 710 715 720
 Gln Asn Ala Thr Val Arg Asp Asn Ile Leu Phe Gly Gln Thr Tyr Asp
 725 730 735
 Arg Lys Arg Tyr Asn Lys Val Ile Asp Ala Cys Ala Leu Arg Ala Asp
 740 745 750
 Ile Asp Ile Leu Ser Ala Gly Asp Leu Thr Glu Ile Gly Glu Lys Gly
 755 760 765
 Ile Asn Leu Ser Gly Gly Gln Lys Gln Arg Ile Ser Leu Ala Arg Ala
 770 775 780
 Val Tyr Ser Asp Ala Asp Leu Tyr Leu Leu Asp Asp Pro Leu Ser Ala
 785 790 795 800
 Val Asp Ala His Val Gly Lys His Ile Phe Glu Glu Val Ile Gly Pro
 805 810 815
 Lys Gly Ile Leu Ala Arg Lys Ser Arg Val Leu Val Thr His Gly Val
 820 825 830
 Thr Phe Leu Pro Gln Val Asp Ser Ile Tyr Val Ile Lys Met Gly Glu
 835 840 845

Ile Ser Glu Ser Gly Thr Phe Asp Gln Leu Val Lys Asn Lys Gly Ala
 850 855 860
 Phe Ala Asp Phe Ile Ile Gln His Leu Gln Glu Gly Asn Glu Glu Glu
 865 870 875 880
 Glu Glu Leu Asn Gln Ile Lys Arg Gln Ile Ser Ser Thr Ala Asp Val
 885 890 895
 Pro Glu Leu Leu Gly Thr Val Glu Lys Ala Ile Lys Leu Ala Arg Thr
 900 905 910
 Glu Ser Leu Ser Asp Ser Ile Ser Val Thr Ser Ala Asp Ser Leu Met
 915 920 925
 Gly Gly Gly Ser Leu Arg Arg Arg Thr Lys Arg Gln Asp Ser His
 930 935 940
 Asp Ser Val Ala Ser Ala Ala Ser Leu Lys Lys Lys Gln Glu Val Glu
 945 950 955 960
 Gly Lys Leu Ile Glu Thr Glu Lys Ser Gln Thr Gly Gly Val Glu Phe
 965 970 975
 Ala Val Tyr Lys His Tyr Ile Lys Ser Val Gly Ile Phe Leu Ser Val
 980 985 990
 Ala Thr Leu Val Leu Asn Phe Val Phe Gln Ala Phe Gln Ile Gly Ser
 995 1000 1005
 Asn Leu Trp Leu Thr Gln Trp Ala Asn Asp Gln Asn Val Ala Asn Asp
 1010 1015 1020
 Thr Gly Leu Arg Asp Met Tyr Leu Gly Val Tyr Gly Ala Phe Gly Phe
 1025 1030 1035 1040
 Gly Gln Val Ala Thr Asn Phe Phe Ser Ser Leu Ala Ile Ser Leu Gly
 1045 1050 1055
 Cys Leu Lys Cys Ser Gln Leu Leu His Gln Thr Leu Leu Tyr Tyr Asn
 1060 1065 1070
 Leu Arg Trp Pro Met Glu Leu Phe Asp Thr Thr Pro Leu Gly Arg Ile
 1075 1080 1085
 Val Asn Arg Phe Ser Lys Asp Ile Asp Thr Ile Asp Asn Val Leu Pro
 1090 1095 1100
 Phe Asn Ile Arg Val Val Ile Gly Gln Ala Tyr Met Val Leu Ala Thr
 1105 1110 1115 1120
 Ile Val Val Ile Ser Leu Ser Thr Pro Ile Phe Leu Ala Val Ile Val
 1125 1130 1135
 Pro Ile Ala Phe Leu Tyr Tyr Phe Ala Gln Arg Phe Tyr Val Ala Thr
 1140 1145 1150

Ser Arg Gln Leu Met Arg Leu Glu Ser Val Ser Arg Ser Pro Ile Tyr
 1155 1160 1165
 Ser His Phe Ser Glu Thr Val Thr Gly Ala Ser Thr Ile Arg Ala Tyr
 1170 1175 1180
 Asn Val Gly Asp Arg Phe Ile Glu Glu Ser Asp Ala Lys Val Asp Lys
 1185 1190 1195 1200
 Asn Gln Val Cys Lys Tyr Pro Ser Val Ile Ala Asn Arg Trp Leu Ala
 1205 1210 1215
 Ile Arg Leu Glu Met Val Gly Asn Leu Ile Ile Leu Phe Ala Ser Leu
 1220 1225 1230
 Phe Ala Val Leu Gly Gly Gln Thr Asn Pro Gly Leu Val Gly Leu Ser
 1235 1240 1245
 Val Ser Tyr Ala Leu Gln Val Thr Gln Thr Leu Asn Trp Leu Val Arg
 1250 1255 1260
 Met Ser Ser Asp Ile Glu Thr Asn Ile Val Ser Val Glu Arg Ile Lys
 1265 1270 1275 1280
 Glu Tyr Gly Glu Thr Lys Gln Glu Ala Pro Trp Glu Leu Glu Gln Asp
 1285 1290 1295
 Lys Asn Lys Pro Lys Asn Trp Pro Gln Glu Gly Arg Val Glu Phe Gln
 1300 1305 1310
 Asn Phe Gln Val Arg Tyr Arg Glu Gly Leu Asp Leu Val Leu Arg Gly
 1315 1320 1325
 Val Ser Phe Asn Ile Gln Gly Gly Glu Lys Val Gly Ile Val Gly Arg
 1330 1335 1340
 Thr Gly Ala Gly Lys Ser Ser Leu Thr Leu Ala Leu Phe Arg Ile Ile
 1345 1350 1355 1360
 Glu Ala Ala Gly Gly Arg Ile Ser Ile Asp Gly Val Asp Ile Ala Ser
 1365 1370 1375
 Met Gly Leu His Met Leu Arg Ser Arg Leu Thr Ile Ile Pro Gln Asp
 1380 1385 1390
 Pro Val Leu Phe Ser Gly Ser Leu Arg Ile Asn Leu Asp Pro Phe Glu
 1395 1400 1405
 Ile Lys Thr Asp Asp Glu Ile Trp Lys Ala Leu Glu Leu Ser His Leu
 1410 1415 1420
 Lys Ser Phe Val Lys Ser Leu Ala Ala Gly Leu Asn His Glu Ile Ala
 1425 1430 1435 1440
 Glu Gly Gly Glu Asn Leu Ser Val Gly Gln Arg Gln Leu Val Cys Leu
 1445 1450 1455

Ala Arg Ala Leu Leu Arg Lys Thr Lys Val Leu Val Leu Asp Glu Ala
 1460 1465 1470

Thr Ala Ala Val Asp Leu Glu Thr Asp Asp Leu Ile Gln Lys Thr Ile
 1475 1480 1485

Arg Thr Glu Phe Lys Glu Cys Thr Val Leu Thr Ile Ala His Arg Leu
 1490 1495 1500

Asn Thr Ile Leu Asp Ser Asp Lys Val Ile Val Leu Asp Lys Gly Gln
 1505 1510 1515 1520

Ile Ile Glu Phe Ala Ser Pro Thr Glu Leu Leu Asp Asn Pro Lys Ser
 1525 1530 1535

Ala Phe

<210> 17
 <211> 1538
 <212> PRT
 <213> Drosophila melanogaster

<400> 17
 Met Ala Asp Asp Thr Ser Ser Pro Met Asp Arg Phe Cys Gly Ser Thr
 1 5 10 15

Phe Trp Asn Ala Thr Glu Thr Trp Tyr Thr Asn Asp Pro Asp Phe Thr
 20 25 30

Pro Cys Phe Glu Gln Thr Ala Leu Val Trp Thr Pro Cys Ala Phe Tyr
 35 40 45

Trp Ala Phe Val Ile Phe Asp Phe Tyr Tyr Leu Lys Ala Ser Leu Asp
 50 55 60

Arg Asn Ile Pro Trp Asn Lys Leu Asn Val Ser Lys Ala Leu Val Asn
 65 70 75 80

Leu Gly Leu Leu Val Ile Thr Ala Leu Asp Leu Ile Met Ala Leu Val
 85 90 95

Lys Lys Gly Gly Asp Ser Glu Leu Pro Leu Tyr Asp Leu Asp Val Trp
 100 105 110

Gly Pro Ile Ile Lys Phe Ala Thr Phe Leu Leu Leu Phe Ile Phe Ile
 115 120 125

Pro Leu Asn Arg Lys Tyr Gly Val Gln Thr Thr Gly Cys Gln Phe Ile
 130 135 140

Phe Trp Phe Leu Leu Thr Val Leu Ser Ile Pro Arg Cys Arg Thr Glu
 145 150 155 160

Val Arg Leu Asp Ala Glu Arg Gln Lys Ile Leu Asn Ser Gln Gln Pro
 165 170 175

Ser Glu Gln Asp Phe Ser Trp Glu Glu Tyr Gln Phe Val Ser Phe Phe
 180 185 190
 Ile Phe Phe Thr Phe Thr Ser Ile Met Leu Ile Leu Asn Cys Phe Ala
 195 200 205
 Asp Gly Met Pro Arg Gln Thr Lys Tyr Gln Arg Gly Glu Asn Glu Ile
 210 215 220
 Pro Glu Leu Ser Ala Ser Phe Leu Ser Arg Ile Thr Tyr Gln Trp Phe
 225 230 235 240
 Asp Lys Met Ala Leu Lys Gly Tyr Arg Asn Pro Leu Glu Glu Lys Asp
 245 250 255
 Leu Trp Asp Leu Arg Pro Gln Asp Ser Cys Ser Glu Val Met Pro Ile
 260 265 270
 Phe Ala His His Trp Asn Gln Asn Val Arg Lys Asn Tyr Lys Asn Lys
 275 280 285
 Ala Arg Val Glu Pro Lys Ala Gln Phe Ser Asn Gly Asn Val Thr Phe
 290 295 300
 Glu Asn Pro His Gly Glu Lys Asn Gly Arg Lys Lys Gly Met Ala Ser
 305 310 315 320
 Ile Met Pro Pro Ile Tyr Lys Ser Phe Gly Gly Val Phe Leu Phe Gly
 325 330 335
 Ala Leu Met Lys Leu Phe Thr Asp Thr Leu Thr Phe Ala Gln Pro Gln
 340 345 350
 Val Leu Ser Leu Ile Ile Ser Phe Val Glu Ala Gln Asp Ala Glu Pro
 355 360 365
 Glu Trp Lys Gly Ile Leu Tyr Ala Val Leu Leu Phe Val Leu Ala Ala
 370 375 380
 Ala Gln Thr Phe Ile Leu Gly Gln Tyr Phe His Arg Met Phe Ile Val
 385 390 395 400
 Gly Leu Arg Ile Arg Thr Ala Leu Ile Asn Ala Ile Tyr Arg Lys Ala
 405 410 415
 Leu Arg Ile Ser Asn Ser Thr Lys Lys Glu Ser Thr Val Gly Glu Ile
 420 425 430
 Val Asn Leu Met Ala Val Asp Ala Gln Arg Phe Met Glu Leu Thr Thr
 435 440 445
 Tyr Leu Asn Met Ile Trp Ser Ala Pro Leu Gln Ile Gly Leu Ala Leu
 450 455 460
 Tyr Phe Leu Trp Gln Gln Leu Gly Pro Ser Val Leu Ala Gly Leu Ala
 465 470 475 480

Val Met Ile Ile Leu Ile Pro Val Asn Gly Val Ile Ala Ser Arg Ile
 485 490 495

 Lys Thr Tyr Gln Ile Arg Gln Met Lys Tyr Lys Asp Glu Arg Val Lys
 500 505 510

 Leu Met Asn Glu Val Leu Ser Gly Ile Lys Val Leu Lys Leu Tyr Ala
 515 520 525

 Trp Glu Pro Ser Phe Glu Lys Gln Val Leu Asp Ile Arg Asp Lys Glu
 530 535 540

 Ile Ala Thr Leu Arg Ser Thr Ala Tyr Leu Asn Ala Gly Thr Ser Phe
 545 550 555 560

 Leu Trp Ser Cys Ala Pro Phe Leu Val Ser Leu Val Thr Phe Ala Thr
 565 570 575

 Tyr Val Leu Thr Ser Glu Ala Asn Gln Leu Ser Val Glu Lys Val Leu
 580 585 590

 Val Ser Ile Ala Leu Phe Asp Leu Met Lys Leu Pro Leu Thr Ile Leu
 595 600 605

 Pro Met Leu Ser Val Asp Ile Ala Glu Thr Gln Val Ser Val Asn Arg
 610 615 620

 Ile Asn Lys Phe Leu Asn Ser Glu Glu Leu Asp Pro Asn Ser Val Leu
 625 630 635 640

 His Asp Ser Ser Lys Pro His Pro Met Ser Ile Glu Asn Gly Glu Phe
 645 650 655

 Ser Trp Gly Asp Glu Ile Thr Leu Arg Asn Ile Asn Ile Glu Val Lys
 660 665 670

 Lys Gly Ser Leu Val Ala Leu Val Gly Thr Val Gly Ser Gly Lys Ser
 675 680 685

 Ser Val Val Gln Ala Phe Leu Gly Glu Met Glu Lys Leu Ala Gly Val
 690 695 700

 Val Asn Thr Val Gly Lys Leu Ala Tyr Val Pro Gln Gln Ala Trp Ile
 705 710 715 720

 Gln Asn Ala Thr Val Arg Asp Asn Ile Leu Phe Gly Gln Thr Tyr Asp
 725 730 735

 Arg Lys Arg Tyr Asn Lys Val Ile Asp Ala Cys Ala Leu Arg Ala Asp
 740 745 750

 Ile Asp Ile Leu Ser Ala Gly Asp Leu Thr Glu Ile Gly Glu Lys Gly
 755 760 765

 Ile Asn Leu Ser Gly Gly Gln Lys Gln Arg Ile Ser Leu Ala Arg Ala
 770 775 780

Val Tyr Ser Asp Ala Asp Leu Tyr Leu Leu Asp Asp Pro Leu Ser Ala
 785 790 795 800

Val Asp Ala His Val Gly Lys His Ile Phe Glu Glu Val Ile Gly Pro
 805 810 815

Lys Gly Ile Leu Ala Arg Lys Ser Arg Val Leu Val Thr His Gly Val
 820 825 830

Thr Phe Leu Pro Gln Val Asp Ser Ile Tyr Val Ile Lys Met Gly Glu
 835 840 845

Ile Ser Glu Ser Gly Thr Phe Asp Gln Leu Val Lys Asn Lys Gly Ala
 850 855 860

Phe Ala Asp Phe Ile Ile Gln His Leu Gln Glu Gly Asn Glu Glu Glu
 865 870 875 880

Glu Glu Leu Asn Gln Ile Lys Arg Gln Ile Ser Ser Thr Ala Asp Val
 885 890 895

Pro Glu Leu Leu Gly Thr Val Glu Lys Ala Ile Lys Leu Ala Arg Thr
 900 905 910

Glu Ser Leu Ser Asp Ser Ile Ser Val Thr Ser Ala Asp Ser Leu Met
 915 920 925

Gly Gly Gly Ser Leu Arg Arg Arg Thr Lys Arg Gln Asp Ser His
 930 935 940

Asp Ser Val Ala Ser Ala Ala Ser Leu Lys Lys Lys Gln Glu Val Glu
 945 950 955 960

Gly Lys Leu Ile Glu Thr Glu Lys Ser Gln Thr Gly Gly Val Glu Phe
 965 970 975

Ala Val Tyr Lys His Tyr Ile Lys Ser Val Gly Ile Phe Leu Ser Val
 980 985 990

Ala Thr Leu Val Leu Asn Phe Val Phe Gln Ala Phe Gln Ile Gly Ser
 995 1000 1005

Asn Leu Trp Leu Thr Gln Trp Ala Asn Asp Gln Asn Val Ala Asn Asp
 1010 1015 1020

Thr Gly Leu Arg Asp Met Tyr Leu Gly Val Tyr Gly Ala Phe Gly Phe
 1025 1030 1035 1040

Gly Gln Val Val Thr Gly Tyr Leu Ser Thr Leu Ile Leu Ser Leu Gly
 1045 1050 1055

Cys Val Tyr Ser Ala Arg Tyr Met His Asn Val Leu Leu His Gly Thr
 1060 1065 1070

Leu Arg Trp Pro Met Glu Met Phe Asp Ile Thr Pro Leu Gly Arg Ile
 1075 1080 1085

Val Asn Arg Phe Ser Lys Asp Val Asp Thr Ile Asp Asn Thr Leu Pro
 1090 1095 1100
 Leu Asn Leu Arg Val Val Ile Leu Gln Leu Phe Ala Val Leu Ala Thr
 1105 1110 1115 1120
 Ile Val Val Ile Ser Leu Ser Thr Pro Ile Phe Leu Ala Val Ile Val
 1125 1130 1135
 Pro Ile Ala Phe Leu Tyr Tyr Phe Ala Gln Arg Phe Tyr Val Ala Thr
 1140 1145 1150
 Ser Arg Gln Leu Met Arg Leu Glu Ser Val Ser Arg Ser Pro Ile Tyr
 1155 1160 1165
 Ser His Phe Ser Glu Thr Val Thr Gly Ala Ser Thr Ile Arg Ala Tyr
 1170 1175 1180
 Asn Val Gly Asp Arg Phe Ile Glu Glu Ser Asp Ala Lys Val Asp Lys
 1185 1190 1195 1200
 Asn Gln Val Cys Lys Tyr Pro Ser Val Ile Ala Asn Arg Trp Leu Ala
 1205 1210 1215
 Ile Arg Leu Glu Met Val Gly Asn Leu Ile Ile Leu Phe Ala Ser Leu
 1220 1225 1230
 Phe Ala Val Leu Gly Gly Gln Thr Asn Pro Gly Leu Val Gly Leu Ser
 1235 1240 1245
 Val Ser Tyr Ala Leu Gln Val Thr Gln Thr Leu Asn Trp Leu Val Arg
 1250 1255 1260
 Met Ser Ser Asp Ile Glu Thr Asn Ile Val Ser Val Glu Arg Ile Lys
 1265 1270 1275 1280
 Glu Tyr Gly Glu Thr Lys Gln Glu Ala Pro Trp Glu Leu Glu Gln Asp
 1285 1290 1295
 Lys Asn Lys Pro Lys Asn Trp Pro Gln Glu Gly Arg Val Glu Phe Gln
 1300 1305 1310
 Asn Phe Gln Val Arg Tyr Arg Glu Gly Leu Asp Leu Val Leu Arg Gly
 1315 1320 1325
 Val Ser Phe Asn Ile Gln Gly Gly Glu Lys Val Gly Ile Val Gly Arg
 1330 1335 1340
 Thr Gly Ala Gly Lys Ser Ser Leu Thr Leu Ala Leu Phe Arg Ile Ile
 1345 1350 1355 1360
 Glu Ala Ala Gly Gly Arg Ile Ser Ile Asp Gly Val Asp Ile Ala Ser
 1365 1370 1375
 Met Gly Leu His Met Leu Arg Ser Arg Leu Thr Ile Ile Pro Gln Asp
 1380 1385 1390

Pro Val Leu Phe Ser Gly Ser Leu Arg Ile Asn Leu Asp Pro Phe Glu
 1395 1400 1405

Ile Lys Thr Asp Asp Glu Ile Trp Lys Ala Leu Glu Leu Ser His Leu
 1410 1415 1420

Lys Ser Phe Val Lys Ser Leu Ala Ala Gly Leu Asn His Glu Ile Ala
 1425 1430 1435 1440

Glu Gly Gly Glu Asn Leu Ser Val Gly Gln Arg Gln Leu Val Cys Leu
 1445 1450 1455

Ala Arg Ala Leu Leu Arg Lys Thr Lys Val Leu Val Leu Asp Glu Ala
 1460 1465 1470

Thr Ala Ala Val Asp Leu Glu Thr Asp Asp Leu Ile Gln Lys Thr Ile
 1475 1480 1485

Arg Thr Glu Phe Lys Glu Cys Thr Val Leu Thr Ile Ala His Arg Leu
 1490 1495 1500

Asn Thr Ile Leu Asp Ser Asp Lys Val Ile Val Leu Asp Lys Gly Gln
 1505 1510 1515 1520

Ile Ile Glu Phe Ala Ser Pro Thr Glu Leu Leu Asp Asn Pro Lys Ser
 1525 1530 1535

Ala Phe

<210> 18

<211> 1538

<212> PRT

<213> Drosophila melanogaster

<400> 18

Met Ala Asp Asp Thr Ser Ser Pro Met Asp Arg Phe Cys Gly Ser Thr
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Phe Trp Asn Ala Thr Glu Thr Trp Tyr Thr Asn Asp Pro Asp Phe Thr
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Pro Cys Phe Glu Gln Thr Ala Leu Val Trp Thr Pro Cys Ala Phe Tyr
 35 40 45

Trp Ala Phe Val Ile Phe Asp Phe Tyr Tyr Leu Lys Ala Ser Leu Asp
 50 55 60

Arg Asn Ile Pro Trp Asn Lys Leu Asn Val Ser Lys Ala Leu Val Asn
 65 70 75 80

Leu Gly Leu Leu Val Ile Thr Ala Leu Asp Leu Ile Met Ala Leu Val
 85 90 95

Lys Lys Gly Gly Asp Ser Glu Leu Pro Leu Tyr Asp Leu Asp Val Trp
 100 105 110

Gly Pro Ile Ile Lys Phe Ala Thr Phe Leu Leu Leu Phe Ile Phe Ile
 115 120 125

Pro Leu Asn Arg Lys Tyr Gly Val Gln Thr Thr Gly Cys Gln Phe Ile
 130 135 140

Phe Trp Phe Leu Leu Thr Val Leu Ser Ile Pro Arg Cys Arg Thr Glu
 145 150 155 160

Val Arg Leu Asp Ala Glu Arg Gln Lys Ile Leu Asn Ser Gln Gln Pro
 165 170 175

Ser Glu Gln Asp Phe Ser Trp Glu Glu Tyr Gln Phe Val Ser Phe Phe
 180 185 190

Ile Phe Phe Thr Phe Thr Ser Ile Met Leu Ile Leu Asn Cys Phe Ala
 195 200 205

Asp Gly Met Pro Arg Gln Thr Lys Tyr Gln Arg Gly Glu Asn Glu Ile
 210 215 220

Pro Glu Leu Ser Ala Ser Phe Leu Ser Arg Ile Thr Tyr Gln Trp Phe
 225 230 235 240

Asp Lys Met Ala Leu Lys Gly Tyr Arg Asn Pro Leu Glu Glu Lys Asp
 245 250 255

Leu Trp Asp Leu Arg Pro Gln Asp Ser Cys Ser Glu Val Met Pro Ile
 260 265 270

Phe Ala His His Trp Asn Gln Asn Val Arg Lys Asn Tyr Lys Asn Lys
 275 280 285

Ala Arg Val Glu Pro Lys Ala Gln Phe Ser Asn Gly Asn Val Thr Phe
 290 295 300

Glu Asn Pro His Gly Glu Lys Asn Gly Arg Lys Lys Gly Met Ala Ser
 305 310 315 320

Ile Met Pro Pro Ile Tyr Lys Ser Phe Gly Gly Val Phe Leu Phe Gly
 325 330 335

Ala Leu Met Lys Leu Phe Thr Asp Thr Leu Thr Phe Ala Gln Pro Gln
 340 345 350

Val Leu Ser Leu Ile Ile Ser Phe Val Glu Ala Gln Asp Ala Glu Pro
 355 360 365

Glu Trp Lys Gly Ile Leu Tyr Ala Val Leu Leu Phe Val Leu Ala Ala
 370 375 380

Ala Gln Thr Phe Ile Leu Gly Gln Tyr Phe His Arg Met Phe Ile Val
 385 390 395 400

Gly Leu Arg Ile Arg Thr Ala Leu Ile Asn Ala Ile Tyr Arg Lys Ala
 405 410 415

Leu Arg Ile Ser Asn Ser Thr Lys Lys Glu Ser Thr Val Gly Glu Ile
 420 425 430
 Val Asn Leu Met Ala Val Asp Ala Gln Arg Phe Met Glu Leu Thr Thr
 435 440 445
 Tyr Leu Asn Met Ile Trp Ser Ala Pro Leu Gln Ile Gly Leu Ala Leu
 450 455 460
 Tyr Phe Leu Trp Gln Gln Leu Gly Pro Ser Val Leu Ala Gly Leu Ala
 465 470 475 480
 Val Met Ile Ile Leu Ile Pro Val Asn Gly Val Ile Ala Ser Arg Ile
 485 490 495
 Lys Thr Tyr Gln Ile Arg Gln Met Lys Tyr Lys Asp Glu Arg Val Lys
 500 505 510
 Leu Met Asn Glu Val Leu Ser Gly Ile Lys Val Leu Lys Leu Tyr Ala
 515 520 525
 Trp Glu Pro Ser Phe Glu Lys Gln Val Leu Asp Ile Arg Asp Lys Glu
 530 535 540
 Ile Ala Thr Leu Arg Ser Thr Ala Tyr Leu Asn Ala Gly Thr Ser Phe
 545 550 555 560
 Leu Trp Ser Cys Ala Pro Phe Leu Val Ser Leu Val Thr Phe Ala Thr
 565 570 575
 Tyr Val Leu Thr Ser Glu Ala Asn Gln Leu Ser Val Glu Lys Val Leu
 580 585 590
 Val Ser Ile Ala Leu Phe Asp Leu Met Lys Leu Pro Leu Thr Ile Leu
 595 600 605
 Pro Met Leu Ser Val Asp Ile Ala Glu Thr Gln Val Ser Val Asn Arg
 610 615 620
 Ile Asn Lys Phe Leu Asn Ser Glu Glu Leu Asp Pro Asn Ser Val Leu
 625 630 635 640
 His Asp Ser Ser Lys Pro His Pro Met Ser Ile Glu Asn Gly Glu Phe
 645 650 655
 Ser Trp Gly Asp Glu Ile Thr Leu Arg Asn Ile Asn Ile Glu Val Lys
 660 665 670
 Lys Gly Ser Leu Val Ala Leu Val Gly Thr Val Gly Ser Gly Lys Ser
 675 680 685
 Ser Val Val Gln Ala Phe Leu Gly Glu Met Glu Lys Leu Ala Gly Val
 690 695 700
 Val Asn Thr Val Gly Lys Leu Ala Tyr Val Pro Gln Gln Ala Trp Ile
 705 710 715 720

Gln Asn Ala Thr Val Arg Asp Asn Ile Leu Phe Gly Gln Thr Tyr Asp
 725 730 735
 Arg Lys Arg Tyr Asn Lys Val Ile Asp Ala Cys Ala Leu Arg Ala Asp
 740 745 750
 Ile Asp Ile Leu Ser Ala Gly Asp Leu Thr Glu Ile Gly Glu Lys Gly
 755 760 765
 Ile Asn Leu Ser Gly Gly Gln Lys Gln Arg Ile Ser Leu Ala Arg Ala
 770 775 780
 Val Tyr Ser Asp Ala Asp Leu Tyr Leu Leu Asp Asp Pro Leu Ser Ala
 785 790 795 800
 Val Asp Ala His Val Gly Lys His Ile Phe Glu Glu Val Ile Gly Pro
 805 810 815
 Lys Gly Ile Leu Ala Arg Lys Ser Arg Val Leu Val Thr His Gly Val
 820 825 830
 Thr Phe Leu Pro Gln Val Asp Ser Ile Tyr Val Ile Lys Met Gly Glu
 835 840 845
 Ile Ser Glu Ser Gly Thr Phe Asp Gln Leu Val Lys Asn Lys Gly Ala
 850 855 860
 Phe Ala Asp Phe Ile Ile Gln His Leu Gln Glu Gly Asn Glu Glu Glu
 865 870 875 880
 Glu Glu Leu Asn Gln Ile Lys Arg Gln Ile Ser Ser Thr Ala Asp Val
 885 890 895
 Pro Glu Leu Leu Gly Thr Val Glu Lys Ala Ile Lys Leu Ala Arg Thr
 900 905 910
 Glu Ser Leu Ser Asp Ser Ile Ser Val Thr Ser Ala Asp Ser Leu Met
 915 920 925
 Gly Gly Gly Ser Leu Arg Arg Arg Thr Lys Arg Gln Asp Ser His
 930 935 940
 Asp Ser Val Ala Ser Ala Ala Ser Leu Lys Lys Lys Gln Glu Val Glu
 945 950 955 960
 Gly Lys Leu Ile Glu Thr Glu Lys Ser Gln Thr Gly Gly Val Glu Phe
 965 970 975
 Ala Val Tyr Lys His Tyr Ile Lys Ser Val Gly Ile Phe Leu Ser Val
 980 985 990
 Ala Thr Leu Val Leu Asn Phe Val Phe Gln Ala Phe Gln Ile Gly Ser
 995 1000 1005
 Asn Leu Trp Leu Thr Gln Trp Ala Asn Asp Gln Asn Val Ala Asn Asp
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Thr Gly Leu Arg Asp Met Tyr Leu Gly Val Tyr Gly Ala Phe Gly Phe
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 Gly Gln Val Thr Ser Tyr Phe Phe Cys Ser Leu Thr Leu Ala Leu Gly
 1045 1050 1055
 Cys Ile Phe Cys Ser Lys Val Leu His Glu Thr Leu Leu Ser Tyr Val
 1060 1065 1070
 Phe Arg Trp Pro Met Glu Leu Phe Asp Thr Thr Pro Leu Gly Arg Val
 1075 1080 1085
 Val Asn Arg Phe Ser Lys Asp Val Asp Thr Ile Asp Asn Val Leu Pro
 1090 1095 1100
 Met Leu Trp Arg Met Val Ile Ser Gln Ala Phe Ala Val Leu Ala Thr
 1105 1110 1115 1120
 Ile Val Val Ile Ser Leu Ser Thr Pro Ile Phe Leu Ala Val Ile Val
 1125 1130 1135
 Pro Ile Ala Phe Leu Tyr Tyr Phe Ala Gln Arg Phe Tyr Val Ala Thr
 1140 1145 1150
 Ser Arg Gln Leu Met Arg Leu Glu Ser Val Ser Arg Ser Pro Ile Tyr
 1155 1160 1165
 Ser His Phe Ser Glu Thr Val Thr Gly Ala Ser Thr Ile Arg Ala Tyr
 1170 1175 1180
 Asn Val Gly Asp Arg Phe Ile Glu Glu Ser Asp Ala Lys Val Asp Lys
 1185 1190 1195 1200
 Asn Gln Val Cys Lys Tyr Pro Ser Val Ile Ala Asn Arg Trp Leu Ala
 1205 1210 1215
 Ile Arg Leu Glu Met Val Gly Asn Leu Ile Ile Leu Phe Ala Ser Leu
 1220 1225 1230
 Phe Ala Val Leu Gly Gly Gln Thr Asn Pro Gly Leu Val Gly Leu Ser
 1235 1240 1245
 Val Ser Tyr Ala Leu Gln Val Thr Gln Thr Leu Asn Trp Leu Val Arg
 1250 1255 1260
 Met Ser Ser Asp Ile Glu Thr Asn Ile Val Ser Val Glu Arg Ile Lys
 1265 1270 1275 1280
 Glu Tyr Gly Glu Thr Lys Gln Glu Ala Pro Trp Glu Leu Glu Gln Asp
 1285 1290 1295
 Lys Asn Lys Pro Lys Asn Trp Pro Gln Glu Gly Arg Val Glu Phe Gln
 1300 1305 1310
 Asn Phe Gln Val Arg Tyr Arg Glu Gly Leu Asp Leu Val Leu Arg Gly
 1315 1320 1325

Val Ser Phe Asn Ile Gln Gly Gly Glu Lys Val Gly Ile Val Gly Arg
 1330 1335 1340

Thr Gly Ala Gly Lys Ser Ser Leu Thr Leu Ala Leu Phe Arg Ile Ile
 1345 1350 1355 1360

Glu Ala Ala Gly Gly Arg Ile Ser Ile Asp Gly Val Asp Ile Ala Ser
 1365 1370 1375

Met Gly Leu His Met Leu Arg Ser Arg Leu Thr Ile Ile Pro Gln Asp
 1380 1385 1390

Pro Val Leu Phe Ser Gly Ser Leu Arg Ile Asn Leu Asp Pro Phe Glu
 1395 1400 1405

Ile Lys Thr Asp Asp Glu Ile Trp Lys Ala Leu Glu Leu Ser His Leu
 1410 1415 1420

Lys Ser Phe Val Lys Ser Leu Ala Ala Gly Leu Asn His Glu Ile Ala
 1425 1430 1435 1440

Glu Gly Glu Asn Leu Ser Val Gly Gln Arg Gln Leu Val Cys Leu
 1445 1450 1455

Ala Arg Ala Leu Leu Arg Lys Thr Lys Val Leu Val Leu Asp Glu Ala
 1460 1465 1470

Thr Ala Ala Val Asp Leu Glu Thr Asp Asp Leu Ile Gln Lys Thr Ile
 1475 1480 1485

Arg Thr Glu Phe Lys Glu Cys Thr Val Leu Thr Ile Ala His Arg Leu
 1490 1495 1500

Asn Thr Ile Leu Asp Ser Asp Lys Val Ile Val Leu Asp Lys Gly Gln
 1505 1510 1515 1520

Ile Ile Glu Phe Ala Ser Pro Thr Glu Leu Leu Asp Asn Pro Lys Ser
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Ala Phe

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 <211> 1538
 <212> PRT
 <213> Drosophila melanogaster

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Pro Cys Phe Glu Gln Thr Ala Leu Val Trp Thr Pro Cys Ala Phe Tyr
 35 40 45

Trp Ala Phe Val Ile Phe Asp Phe Tyr Tyr Leu Lys Ala Ser Leu Asp
 50 55 60

Arg Asn Ile Pro Trp Asn Lys Leu Asn Val Ser Lys Ala Leu Val Asn
 65 70 75 80

Leu Gly Leu Leu Val Ile Thr Ala Leu Asp Leu Ile Met Ala Leu Val
 85 90 95

Lys Lys Gly Gly Asp Ser Glu Leu Pro Leu Tyr Asp Leu Asp Val Trp
 100 105 110

Gly Pro Ile Ile Lys Phe Ala Thr Phe Leu Leu Leu Phe Ile Phe Ile
 115 120 125

Pro Leu Asn Arg Lys Tyr Gly Val Gln Thr Thr Gly Cys Gln Phe Ile
 130 135 140

Phe Trp Phe Leu Leu Thr Val Leu Ser Ile Pro Arg Cys Arg Thr Glu
 145 150 155 160

Val Arg Leu Asp Ala Glu Arg Gln Lys Ile Leu Asn Ser Gln Gln Pro
 165 170 175

Ser Glu Gln Asp Phe Ser Trp Glu Glu Tyr Gln Phe Val Ser Phe Phe
 180 185 190

Ile Phe Phe Thr Phe Thr Ser Ile Met Leu Ile Leu Asn Cys Phe Ala
 195 200 205

Asp Gly Met Pro Arg Gln Thr Lys Tyr Gln Arg Gly Glu Asn Glu Ile
 210 215 220

Pro Glu Leu Ser Ala Ser Phe Leu Ser Arg Ile Thr Tyr Gln Trp Phe
 225 230 235 240

Asp Lys Met Ala Leu Lys Gly Tyr Arg Asn Pro Leu Glu Glu Lys Asp
 245 250 255

Leu Trp Asp Leu Arg Pro Gln Asp Ser Cys Ser Glu Val Met Pro Ile
 260 265 270

Phe Ala His His Trp Asn Gln Asn Val Arg Lys Asn Tyr Lys Asn Lys
 275 280 285

Ala Arg Val Glu Pro Lys Ala Gln Phe Ser Asn Gly Asn Val Thr Phe
 290 295 300

Glu Asn Pro His Gly Glu Lys Asn Gly Arg Lys Lys Gly Met Ala Ser
 305 310 315 320

Ile Met Pro Pro Ile Tyr Lys Ser Phe Gly Gly Val Phe Leu Phe Gly
 325 330 335

Ala Leu Met Lys Leu Phe Thr Asp Thr Leu Thr Phe Ala Gln Pro Gln
 340 345 350

Val Leu Ser Leu Ile Ile Ser Phe Val Glu Ala Gln Asp Ala Glu Pro
 355 360 365
 Glu Trp Lys Gly Ile Leu Tyr Ala Val Leu Leu Phe Val Leu Ala Ala
 370 375 380
 Ala Gln Thr Phe Ile Leu Gly Gln Tyr Phe His Arg Met Phe Ile Val
 385 390 395 400
 Gly Leu Arg Ile Arg Thr Ala Leu Ile Asn Ala Ile Tyr Arg Lys Ala
 405 410 415
 Leu Arg Ile Ser Asn Ser Thr Lys Lys Glu Ser Thr Val Gly Glu Ile
 420 425 430
 Val Asn Leu Met Ala Val Asp Ala Gln Arg Phe Met Glu Leu Thr Thr
 435 440 445
 Tyr Leu Asn Met Ile Trp Ser Ala Pro Leu Gln Ile Gly Leu Ala Leu
 450 455 460
 Tyr Phe Leu Trp Gln Gln Leu Gly Pro Ser Val Leu Ala Gly Leu Ala
 465 470 475 480
 Val Met Ile Ile Leu Ile Pro Val Asn Gly Val Ile Ala Ser Arg Ile
 485 490 495
 Lys Thr Tyr Gln Ile Arg Gln Met Lys Tyr Lys Asp Glu Arg Val Lys
 500 505 510
 Leu Met Asn Glu Val Leu Ser Gly Ile Lys Val Leu Lys Leu Tyr Ala
 515 520 525
 Trp Glu Pro Ser Phe Glu Lys Gln Val Leu Asp Ile Arg Asp Lys Glu
 530 535 540
 Ile Ala Thr Leu Arg Ser Thr Ala Tyr Leu Asn Ala Gly Thr Ser Phe
 545 550 555 560
 Leu Trp Ser Cys Ala Pro Phe Leu Val Ser Leu Val Thr Phe Ala Thr
 565 570 575
 Tyr Val Leu Thr Ser Glu Ala Asn Gln Leu Ser Val Glu Lys Val Leu
 580 585 590
 Val Ser Ile Ala Leu Phe Asp Leu Met Lys Leu Pro Leu Thr Ile Leu
 595 600 605
 Pro Met Leu Ser Val Asp Ile Ala Glu Thr Gln Val Ser Val Asn Arg
 610 615 620
 Ile Asn Lys Phe Leu Asn Ser Glu Glu Leu Asp Pro Asn Ser Val Leu
 625 630 635 640
 His Asp Ser Ser Lys Pro His Pro Met Ser Ile Glu Asn Gly Glu Phe
 645 650 655

Ser Trp Gly Asp Glu Ile Thr Leu Arg Asn Ile Asn Ile Glu Val Lys
 660 665 670
 Lys Gly Ser Leu Val Ala Leu Val Gly Thr Val Gly Ser Gly Lys Ser
 675 680 685
 Ser Val Val Gln Ala Phe Leu Gly Glu Met Glu Lys Leu Ala Gly Val
 690 695 700
 Val Asn Thr Val Gly Lys Leu Ala Tyr Val Pro Gln Gln Ala Trp Ile
 705 710 715 720
 Gln Asn Ala Thr Val Arg Asp Asn Ile Leu Phe Gly Gln Thr Tyr Asp
 725 730 735
 Arg Lys Arg Tyr Asn Lys Val Ile Asp Ala Cys Ala Leu Arg Ala Asp
 740 745 750
 Ile Asp Ile Leu Ser Ala Gly Asp Leu Thr Glu Ile Gly Glu Lys Gly
 755 760 765
 Ile Asn Leu Ser Gly Gly Gln Lys Gln Arg Ile Ser Leu Ala Arg Ala
 770 775 780
 Val Tyr Ser Asp Ala Asp Leu Tyr Leu Leu Asp Asp Pro Leu Ser Ala
 785 790 795 800
 Val Asp Ala His Val Gly Lys His Ile Phe Glu Glu Val Ile Gly Pro
 805 810 815
 Lys Gly Ile Leu Ala Arg Lys Ser Arg Val Leu Val Thr His Gly Val
 820 825 830
 Thr Phe Leu Pro Gln Val Asp Ser Ile Tyr Val Ile Lys Met Gly Glu
 835 840 845
 Ile Ser Glu Ser Gly Thr Phe Asp Gln Leu Val Lys Asn Lys Gly Ala
 850 855 860
 Phe Ala Asp Phe Ile Ile Gln His Leu Gln Glu Gly Asn Glu Glu Glu
 865 870 875 880
 Glu Glu Leu Asn Gln Ile Lys Arg Gln Ile Ser Ser Thr Ala Asp Val
 885 890 895
 Pro Glu Leu Leu Gly Thr Val Glu Lys Ala Ile Lys Leu Ala Arg Thr
 900 905 910
 Glu Ser Leu Ser Asp Ser Ile Ser Val Thr Ser Ala Asp Ser Leu Met
 915 920 925
 Gly Gly Gly Ser Leu Arg Arg Arg Thr Lys Arg Gln Asp Ser His
 930 935 940
 Asp Ser Val Ala Ser Ala Ala Ser Leu Lys Lys Lys Gln Glu Val Glu
 945 950 955 960

Gly Lys Leu Ile Glu Thr Glu Lys Ser Gln Thr Gly Gly Val Glu Phe
 965 970 975

Ala Val Tyr Lys His Tyr Ile Lys Ser Val Gly Ile Phe Leu Ser Val
 980 985 990

Ala Thr Leu Val Leu Asn Phe Val Phe Gln Ala Phe Gln Ile Gly Ser
 995 1000 1005

Asn Leu Trp Leu Thr Gln Trp Ala Asn Asp Gln Asn Val Ala Asn Asp
 1010 1015 1020

Thr Gly Leu Arg Asp Met Tyr Leu Gly Val Tyr Gly Ala Phe Gly Phe
 1025 1030 1035 1040

Gly Gln Val Leu Ser Lys Tyr Leu Ser Gly Leu Ala Leu Ala Ile Gly
 1045 1050 1055

Gly Leu His Cys Ser Met Asn Val Phe Asn Lys Leu Leu Asn Thr Gly
 1060 1065 1070

Leu Lys Trp Pro Met Glu Leu Phe Asp Thr Thr Pro Leu Gly Arg Ile
 1075 1080 1085

Leu Ser Arg Tyr Ser Lys Asp Val Asp Thr Val Asp Ser Val Leu Pro
 1090 1095 1100

Ala Ile Thr Val Gln Leu Leu Asn Thr Cys Phe Gly Val Leu Ala Thr
 1105 1110 1115 1120

Ile Val Val Ile Ser Leu Ser Thr Pro Ile Phe Leu Ala Val Ile Val
 1125 1130 1135

Pro Ile Ala Phe Leu Tyr Tyr Phe Ala Gln Arg Phe Tyr Val Ala Thr
 1140 1145 1150

Ser Arg Gln Leu Met Arg Leu Glu Ser Val Ser Arg Ser Pro Ile Tyr
 1155 1160 1165

Ser His Phe Ser Glu Thr Val Thr Gly Ala Ser Thr Ile Arg Ala Tyr
 1170 1175 1180

Asn Val Gly Asp Arg Phe Ile Glu Glu Ser Asp Ala Lys Val Asp Lys
 1185 1190 1195 1200

Asn Gln Val Cys Lys Tyr Pro Ser Val Ile Ala Asn Arg Trp Leu Ala
 1205 1210 1215

Ile Arg Leu Glu Met Val Gly Asn Leu Ile Ile Leu Phe Ala Ser Leu
 1220 1225 1230

Phe Ala Val Leu Gly Gly Gln Thr Asn Pro Gly Leu Val Gly Leu Ser
 1235 1240 1245

Val Ser Tyr Ala Leu Gln Val Thr Gln Thr Leu Asn Trp Leu Val Arg
 1250 1255 1260

Met Ser Ser Asp Ile Glu Thr Asn Ile Val Ser Val Glu Arg Ile Lys
 1265 1270 1275 1280
 Glu Tyr Gly Glu Thr Lys Gln Glu Ala Pro Trp Glu Leu Glu Gln Asp
 1285 1290 1295
 Lys Asn Lys Pro Lys Asn Trp Pro Gln Glu Gly Arg Val Glu Phe Gln
 1300 1305 1310
 Asn Phe Gln Val Arg Tyr Arg Glu Gly Leu Asp Leu Val Leu Arg Gly
 1315 1320 1325
 Val Ser Phe Asn Ile Gln Gly Glu Lys Val Gly Ile Val Gly Arg
 1330 1335 1340
 Thr Gly Ala Gly Lys Ser Ser Leu Thr Leu Ala Leu Phe Arg Ile Ile
 1345 1350 1355 1360
 Glu Ala Ala Gly Gly Arg Ile Ser Ile Asp Gly Val Asp Ile Ala Ser
 1365 1370 1375
 Met Gly Leu His Met Leu Arg Ser Arg Leu Thr Ile Ile Pro Gln Asp
 1380 1385 1390
 Pro Val Leu Phe Ser Gly Ser Leu Arg Ile Asn Leu Asp Pro Phe Glu
 1395 1400 1405
 Ile Lys Thr Asp Asp Glu Ile Trp Lys Ala Leu Glu Leu Ser His Leu
 1410 1415 1420
 Lys Ser Phe Val Lys Ser Leu Ala Ala Gly Leu Asn His Glu Ile Ala
 1425 1430 1435 1440
 Glu Gly Gly Glu Asn Leu Ser Val Gly Gln Arg Gln Leu Val Cys Leu
 1445 1450 1455
 Ala Arg Ala Leu Leu Arg Lys Thr Lys Val Leu Val Leu Asp Glu Ala
 1460 1465 1470
 Thr Ala Ala Val Asp Leu Glu Thr Asp Asp Leu Ile Gln Lys Thr Ile
 1475 1480 1485
 Arg Thr Glu Phe Lys Glu Cys Thr Val Leu Thr Ile Ala His Arg Leu
 1490 1495 1500
 Asn Thr Ile Leu Asp Ser Asp Lys Val Ile Val Leu Asp Lys Gly Gln
 1505 1510 1515 1520
 Ile Ile Glu Phe Ala Ser Pro Thr Glu Leu Leu Asp Asn Pro Lys Ser
 1525 1530 1535
 Ala Phe

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 <213> Drosophila melanogaster

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 Pro Cys Phe Glu Gln Thr Ala Leu Val Trp Thr Pro Cys Ala Phe Tyr
 35 40 45

 Trp Ala Phe Val Ile Phe Asp Phe Tyr Tyr Leu Lys Ala Ser Leu Asp
 50 55 60

 Arg Asn Ile Pro Trp Asn Lys Leu Asn Val Ser Lys Ala Leu Val Asn
 65 70 75 80

 Leu Gly Leu Leu Val Ile Thr Ala Leu Asp Leu Ile Met Ala Leu Val
 85 90 95

 Lys Lys Gly Gly Asp Ser Glu Leu Pro Leu Tyr Asp Leu Asp Val Trp
 100 105 110

 Gly Pro Ile Ile Lys Phe Ala Thr Phe Leu Leu Leu Phe Ile Phe Ile
 115 120 125

 Pro Leu Asn Arg Lys Tyr Gly Val Gln Thr Thr Gly Cys Gln Phe Ile
 130 135 140

 Phe Trp Phe Leu Leu Thr Val Leu Ser Ile Pro Arg Cys Arg Thr Glu
 145 150 155 160

 Val Arg Leu Asp Ala Glu Arg Gln Lys Ile Leu Asn Ser Gln Gln Pro
 165 170 175

 Ser Glu Gln Asp Phe Ser Trp Glu Glu Tyr Gln Phe Val Ser Phe Phe
 180 185 190

 Ile Phe Phe Thr Phe Thr Ser Ile Met Leu Ile Leu Asn Cys Phe Ala
 195 200 205

 Asp Gly Met Pro Arg Gln Thr Lys Tyr Gln Arg Gly Glu Asn Glu Ile
 210 215 220

 Pro Glu Leu Ser Ala Ser Phe Leu Ser Arg Ile Thr Tyr Gln Trp Phe
 225 230 235 240

 Asp Lys Met Ala Leu Lys Gly Tyr Arg Asn Pro Leu Glu Glu Lys Asp
 245 250 255

 Leu Trp Asp Leu Arg Pro Gln Asp Ser Cys Ser Glu Val Met Pro Ile
 260 265 270

 Phe Ala His His Trp Asn Gln Asn Val Arg Lys Asn Tyr Lys Asn Lys
 275 280 285

 Ala Arg Val Glu Pro Lys Ala Gln Phe Ser Asn Gly Asn Val Thr Phe
 290 295 300

Glu Asn Pro His Gly Glu Lys Asn Gly Arg Lys Lys Gly Met Ala Ser
 305 310 315 320
 Ile Met Pro Pro Ile Tyr Lys Ser Phe Gly Gly Val Phe Leu Phe Gly
 325 330 335
 Ala Leu Met Lys Leu Phe Thr Asp Thr Leu Thr Phe Ala Gln Pro Gln
 340 345 350
 Val Leu Ser Leu Ile Ile Ser Phe Val Glu Ala Gln Asp Ala Glu Pro
 355 360 365
 Glu Trp Lys Gly Ile Leu Tyr Ala Val Leu Leu Phe Val Leu Ala Ala
 370 375 380
 Ala Gln Thr Phe Ile Leu Gly Gln Tyr Phe His Arg Met Phe Ile Val
 385 390 395 400
 Gly Leu Arg Ile Arg Thr Ala Leu Ile Asn Ala Ile Tyr Arg Lys Ala
 405 410 415
 Leu Arg Ile Ser Asn Ser Thr Lys Lys Glu Ser Thr Val Gly Glu Ile
 420 425 430
 Val Asn Leu Met Ala Val Asp Ala Gln Arg Phe Met Glu Leu Thr Thr
 435 440 445
 Tyr Leu Asn Met Ile Trp Ser Ala Pro Leu Gln Ile Gly Leu Ala Leu
 450 455 460
 Tyr Phe Leu Trp Gln Gln Leu Gly Pro Ser Val Leu Ala Gly Leu Ala
 465 470 475 480
 Val Met Ile Ile Leu Ile Pro Val Asn Gly Val Ile Ala Ser Arg Ile
 485 490 495
 Lys Thr Tyr Gln Ile Arg Gln Met Lys Tyr Lys Asp Glu Arg Val Lys
 500 505 510
 Leu Met Asn Glu Val Leu Ser Gly Ile Lys Val Leu Lys Leu Tyr Ala
 515 520 525
 Trp Glu Pro Ser Phe Glu Lys Gln Val Leu Asp Ile Arg Asp Lys Glu
 530 535 540
 Ile Ala Thr Leu Arg Ser Thr Ala Tyr Leu Asn Ala Gly Thr Ser Phe
 545 550 555 560
 Leu Trp Ser Cys Ala Pro Phe Leu Val Ser Leu Val Thr Phe Ala Thr
 565 570 575
 Tyr Val Leu Thr Ser Glu Ala Asn Gln Leu Ser Val Glu Lys Val Leu
 580 585 590
 Val Ser Ile Ala Leu Phe Asp Leu Met Lys Leu Pro Leu Thr Ile Leu
 595 600 605

Pro Met Leu Ser Val Asp Ile Ala Glu Thr Gln Val Ser Val Asn Arg
 610 615 620
 Ile Asn Lys Phe Leu Asn Ser Glu Glu Leu Asp Pro Asn Ser Val Leu
 625 630 635 640
 His Asp Ser Ser Lys Pro His Pro Met Ser Ile Glu Asn Gly Glu Phe
 645 650 655
 Ser Trp Gly Asp Glu Ile Thr Leu Arg Asn Ile Asn Ile Glu Val Lys
 660 665 670
 Lys Gly Ser Leu Val Ala Leu Val Gly Thr Val Gly Ser Gly Lys Ser
 675 680 685
 Ser Val Val Gln Ala Phe Leu Gly Glu Met Glu Lys Leu Ala Gly Val
 690 695 700
 Val Asn Thr Val Gly Lys Leu Ala Tyr Val Pro Gln Gln Ala Trp Ile
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 Gln Asn Ala Thr Val Arg Asp Asn Ile Leu Phe Gly Gln Thr Tyr Asp
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 Arg Lys Arg Tyr Asn Lys Val Ile Asp Ala Cys Ala Leu Arg Ala Asp
 740 745 750
 Ile Asp Ile Leu Ser Ala Gly Asp Leu Thr Glu Ile Gly Glu Lys Gly
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 Ile Asn Leu Ser Gly Gly Gln Lys Gln Arg Ile Ser Leu Ala Arg Ala
 770 775 780
 Val Tyr Ser Asp Ala Asp Leu Tyr Leu Leu Asp Asp Pro Leu Ser Ala
 785 790 795 800
 Val Asp Ala His Val Gly Lys His Ile Phe Glu Glu Val Ile Gly Pro
 805 810 815
 Lys Gly Ile Leu Ala Arg Lys Ser Arg Val Leu Val Thr His Gly Val
 820 825 830
 Thr Phe Leu Pro Gln Val Asp Ser Ile Tyr Val Ile Lys Met Gly Glu
 835 840 845
 Ile Ser Glu Ser Gly Thr Phe Asp Gln Leu Val Lys Asn Lys Gly Ala
 850 855 860
 Phe Ala Asp Phe Ile Ile Gln His Leu Gln Glu Gly Asn Glu Glu Glu
 865 870 875 880
 Glu Glu Leu Asn Gln Ile Lys Arg Gln Ile Ser Ser Thr Ala Asp Val
 885 890 895
 Pro Glu Leu Leu Gly Thr Val Glu Lys Ala Ile Lys Leu Ala Arg Thr
 900 905 910

Glu Ser Leu Ser Asp Ser Ile Ser Val Thr Ser Ala Asp Ser Leu Met
 915 920 925
 Gly Gly Gly Ser Leu Arg Arg Arg Thr Lys Arg Gln Asp Ser His
 930 935 940
 Asp Ser Val Ala Ser Ala Ala Ser Leu Lys Lys Lys Gln Glu Val Glu
 945 950 955 960
 Gly Lys Leu Ile Glu Thr Glu Lys Ser Gln Thr Gly Gly Val Glu Phe
 965 970 975
 Ala Val Tyr Lys His Tyr Ile Lys Ser Val Gly Ile Phe Leu Ser Val
 980 985 990
 Ala Thr Leu Val Leu Asn Phe Val Phe Gln Ala Phe Gln Ile Gly Ser
 995 1000 1005
 Asn Leu Trp Leu Thr Gln Trp Ala Asn Asp Gln Asn Val Ala Asn Asp
 1010 1015 1020
 Thr Gly Leu Arg Asp Met Tyr Leu Gly Val Tyr Gly Ala Phe Gly Phe
 1025 1030 1035 1040
 Gly Gln Gly Val Leu Ala Tyr Phe Ala Val Val Ile Val Tyr Leu Gly
 1045 1050 1055
 Gly Phe Gln Ala Ala Lys Thr Ile His Asn Glu Leu Leu Ala Val Ile
 1060 1065 1070
 Ile Arg Gly Ser Val Cys Arg Phe Phe Asp Ile Thr Pro Ile Gly Arg
 1075 1080 1085
 Leu Leu Asn Ser Phe Ser Gly Asp Met Asp Val Val Asp Glu Glu Leu
 1090 1095 1100
 Pro Ala Thr Met Asp Ser Phe Met Thr Phe Ile Phe Met Val Leu Ala
 1105 1110 1115 1120
 Thr Ile Val Val Ile Ser Leu Ser Thr Pro Ile Phe Leu Ala Val Ile
 1125 1130 1135
 Val Pro Ile Ala Phe Leu Tyr Tyr Phe Ala Gln Arg Phe Tyr Val Ala
 1140 1145 1150
 Thr Ser Arg Gln Leu Met Arg Leu Glu Ser Val Ser Arg Ser Pro Ile
 1155 1160 1165
 Tyr Ser His Phe Ser Glu Thr Val Thr Gly Ala Ser Thr Ile Arg Ala
 1170 1175 1180
 Tyr Asn Val Gly Asp Arg Phe Ile Glu Glu Ser Asp Ala Lys Val Asp
 1185 1190 1195 1200
 Lys Asn Gln Val Cys Lys Tyr Pro Ser Val Ile Ala Asn Arg Trp Leu
 1205 1210 1215

Ala Ile Arg Leu Glu Met Val Gly Asn Leu Ile Ile Leu Phe Ala Ser
 1220 1225 1230
 Leu Phe Ala Val Leu Gly Gly Gln Thr Asn Pro Gly Leu Val Gly Leu
 1235 1240 1245
 Ser Val Ser Tyr Ala Leu Gln Val Thr Gln Thr Leu Asn Trp Leu Val
 1250 1255 1260
 Arg Met Ser Ser Asp Ile Glu Thr Asn Ile Val Ser Val Glu Arg Ile
 1265 1270 1275 1280
 Lys Glu Tyr Gly Glu Thr Lys Gln Glu Ala Pro Trp Glu Leu Glu Gln
 1285 1290 1295
 Asp Lys Asn Lys Pro Lys Asn Trp Pro Gln Glu Gly Arg Val Glu Phe
 1300 1305 1310
 Gln Asn Phe Gln Val Arg Tyr Arg Glu Gly Leu Asp Leu Val Leu Arg
 1315 1320 1325
 Gly Val Ser Phe Asn Ile Gln Gly Gly Glu Lys Val Gly Ile Val Gly
 1330 1335 1340
 Arg Thr Gly Ala Gly Lys Ser Ser Leu Thr Leu Ala Leu Phe Arg Ile
 1345 1350 1355 1360
 Ile Glu Ala Ala Gly Gly Arg Ile Ser Ile Asp Gly Val Asp Ile Ala
 1365 1370 1375
 Ser Met Gly Leu His Met Leu Arg Ser Arg Leu Thr Ile Ile Pro Gln
 1380 1385 1390
 Asp Pro Val Leu Phe Ser Gly Ser Leu Arg Ile Asn Leu Asp Pro Phe
 1395 1400 1405
 Glu Ile Lys Thr Asp Asp Glu Ile Trp Lys Ala Leu Glu Leu Ser His
 1410 1415 1420
 Leu Lys Ser Phe Val Lys Ser Leu Ala Ala Gly Leu Asn His Glu Ile
 1425 1430 1435 1440
 Ala Glu Gly Gly Glu Asn Leu Ser Val Gly Gln Arg Gln Leu Val Cys
 1445 1450 1455
 Leu Ala Arg Ala Leu Leu Arg Lys Thr Lys Val Leu Val Leu Asp Glu
 1460 1465 1470
 Ala Thr Ala Ala Val Asp Leu Glu Thr Asp Asp Leu Ile Gln Lys Thr
 1475 1480 1485
 Ile Arg Thr Glu Phe Lys Glu Cys Thr Val Leu Thr Ile Ala His Arg
 1490 1495 1500
 Leu Asn Thr Ile Leu Asp Ser Asp Lys Val Ile Val Leu Asp Lys Gly
 1505 1510 1515 1520

Gln Ile Ile Glu Phe Ala Ser Pro Thr Glu Leu Leu Asp Asn Pro Lys
 1525 1530 1535

Ser Ala Phe

<210> 21
 <211> 1538
 <212> PRT
 <213> Drosophila melanogaster

<400> 21
 Met Ala Asp Asp Thr Ser Ser Pro Met Asp Arg Phe Cys Gly Ser Thr
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Phe Trp Asn Ala Thr Glu Thr Trp Tyr Thr Asn Asp Pro Asp Phe Thr
 20 25 30

Pro Cys Phe Glu Gln Thr Ala Leu Val Trp Thr Pro Cys Ala Phe Tyr
 35 40 45

Trp Ala Phe Val Ile Phe Asp Phe Tyr Tyr Leu Lys Ala Ser Leu Asp
 50 55 60

Arg Asn Ile Pro Trp Asn Lys Leu Asn Val Ser Lys Ala Leu Val Asn
 65 70 75 80

Leu Gly Leu Leu Val Ile Thr Ala Leu Asp Leu Ile Met Ala Leu Val
 85 90 95

Lys Lys Gly Gly Asp Ser Glu Leu Pro Leu Tyr Asp Leu Asp Val Trp
 100 105 110

Gly Pro Ile Ile Lys Phe Ala Thr Phe Leu Leu Leu Phe Ile Phe Ile
 115 120 125

Pro Leu Asn Arg Lys Tyr Gly Val Gln Thr Thr Gly Cys Gln Phe Ile
 130 135 140

Phe Trp Phe Leu Leu Thr Val Leu Ser Ile Pro Arg Cys Arg Thr Glu
 145 150 155 160

Val Arg Leu Asp Ala Glu Arg Gln Lys Ile Leu Asn Ser Gln Gln Pro
 165 170 175

Ser Glu Gln Asp Phe Ser Trp Glu Glu Tyr Gln Phe Val Ser Phe Phe
 180 185 190

Ile Phe Phe Thr Phe Thr Ser Ile Met Leu Ile Leu Asn Cys Phe Ala
 195 200 205

Asp Gly Met Pro Arg Gln Thr Lys Tyr Gln Arg Gly Glu Asn Glu Ile
 210 215 220

Pro Glu Leu Ser Ala Ser Phe Leu Ser Arg Ile Thr Tyr Gln Trp Phe
 225 230 235 240

Asp Lys Met Ala Leu Lys Gly Tyr Arg Asn Pro Leu Glu Glu Lys Asp
 245 250 255

Leu Trp Asp Leu Arg Pro Gln Asp Ser Cys Ser Glu Val Met Pro Ile
 260 265 270

Phe Ala His His Trp Asn Gln Asn Val Arg Lys Asn Tyr Lys Asn Lys
 275 280 285

Ala Arg Val Glu Pro Lys Ala Gln Phe Ser Asn Gly Asn Val Thr Phe
 290 295 300

Glu Asn Pro His Gly Glu Lys Asn Gly Arg Lys Lys Gly Met Ala Ser
 305 310 315 320

Ile Met Pro Pro Ile Tyr Lys Ser Phe Gly Gly Val Phe Leu Phe Gly
 325 330 335

Ala Leu Met Lys Leu Phe Thr Asp Thr Leu Thr Phe Ala Gln Pro Gln
 340 345 350

Val Leu Ser Leu Ile Ile Ser Phe Val Glu Ala Gln Asp Ala Glu Pro
 355 360 365

Glu Trp Lys Gly Ile Leu Tyr Ala Val Leu Leu Phe Val Leu Ala Ala
 370 375 380

Ala Gln Thr Phe Ile Leu Gly Gln Tyr Phe His Arg Met Phe Ile Val
 385 390 395 400

Gly Leu Arg Ile Arg Thr Ala Leu Ile Asn Ala Ile Tyr Arg Lys Ala
 405 410 415

Leu Arg Ile Ser Asn Ser Thr Lys Lys Glu Ser Thr Val Gly Glu Ile
 420 425 430

Val Asn Leu Met Ala Val Asp Ala Gln Arg Phe Met Glu Leu Thr Thr
 435 440 445

Tyr Leu Asn Met Ile Trp Ser Ala Pro Leu Gln Ile Gly Leu Ala Leu
 450 455 460

Tyr Phe Leu Trp Gln Gln Leu Gly Pro Ser Val Leu Ala Gly Leu Ala
 465 470 475 480

Val Met Ile Ile Leu Ile Pro Val Asn Gly Val Ile Ala Ser Arg Ile
 485 490 495

Lys Thr Tyr Gln Ile Arg Gln Met Lys Tyr Lys Asp Glu Arg Val Lys
 500 505 510

Leu Met Asn Glu Val Leu Ser Gly Ile Lys Val Leu Lys Leu Tyr Ala
 515 520 525

Trp Glu Pro Ser Phe Glu Lys Gln Val Leu Asp Ile Arg Asp Lys Glu
 530 535 540

Ile Ala Thr Leu Arg Ser Thr Ala Tyr Leu Asn Ala Gly Thr Ser Phe
 545 550 555 560
 Leu Trp Ser Cys Ala Pro Phe Leu Val Ser Leu Val Thr Phe Ala Thr
 565 570 575
 Tyr Val Leu Thr Ser Glu Ala Asn Gln Leu Ser Val Glu Lys Val Leu
 580 585 590
 Val Ser Ile Ala Leu Phe Asp Leu Met Lys Leu Pro Leu Thr Ile Leu
 595 600 605
 Pro Met Leu Ser Val Asp Ile Ala Glu Thr Gln Val Ser Val Asn Arg
 610 615 620
 Ile Asn Lys Phe Leu Asn Ser Glu Glu Leu Asp Pro Asn Ser Val Leu
 625 630 635 640
 His Asp Ser Ser Lys Pro His Pro Met Ser Ile Glu Asn Gly Glu Phe
 645 650 655
 Ser Trp Gly Asp Glu Ile Thr Leu Arg Asn Ile Asn Ile Glu Val Lys
 660 665 670
 Lys Gly Ser Leu Val Ala Leu Val Gly Thr Val Gly Ser Gly Lys Ser
 675 680 685
 Ser Val Val Gln Ala Phe Leu Gly Glu Met Glu Lys Leu Ala Gly Val
 690 695 700
 Val Asn Thr Val Gly Lys Leu Ala Tyr Val Pro Gln Gln Ala Trp Ile
 705 710 715 720
 Gln Asn Ala Thr Val Arg Asp Asn Ile Leu Phe Gly Gln Thr Tyr Asp
 725 730 735
 Arg Lys Arg Tyr Asn Lys Val Ile Asp Ala Cys Ala Leu Arg Ala Asp
 740 745 750
 Ile Asp Ile Leu Ser Ala Gly Asp Leu Thr Glu Ile Gly Glu Lys Gly
 755 760 765
 Ile Asn Leu Ser Gly Gly Gln Lys Gln Arg Ile Ser Leu Ala Arg Ala
 770 775 780
 Val Tyr Ser Asp Ala Asp Leu Tyr Leu Leu Asp Asp Pro Leu Ser Ala
 785 790 795 800
 Val Asp Ala His Val Gly Lys His Ile Phe Glu Glu Val Ile Gly Pro
 805 810 815
 Lys Gly Ile Leu Ala Arg Lys Ser Arg Val Leu Val Thr His Gly Val
 820 825 830
 Thr Phe Leu Pro Gln Val Asp Ser Ile Tyr Val Ile Lys Met Gly Glu
 835 840 845

Ile Ser Glu Ser Gly Thr Phe Asp Gln Leu Val Lys Asn Lys Gly Ala
 850 855 860
 Phe Ala Asp Phe Ile Ile Gln His Leu Gln Glu Gly Asn Glu Glu Glu
 865 870 875 880
 Glu Glu Leu Asn Gln Ile Lys Arg Gln Ile Ser Ser Thr Ala Asp Val
 885 890 895
 Pro Glu Leu Leu Gly Thr Val Glu Lys Ala Ile Lys Leu Ala Arg Thr
 900 905 910
 Glu Ser Leu Ser Asp Ser Ile Ser Val Thr Ser Ala Asp Ser Leu Met
 915 920 925
 Gly Gly Gly Ser Leu Arg Arg Arg Thr Lys Arg Gln Asp Ser His
 930 935 940
 Asp Ser Val Ala Ser Ala Ala Ser Leu Lys Lys Lys Gln Glu Val Glu
 945 950 955 960
 Gly Lys Leu Ile Glu Thr Glu Lys Ser Gln Thr Gly Gly Val Glu Phe
 965 970 975
 Ala Val Tyr Lys His Tyr Ile Lys Ser Val Gly Ile Phe Leu Ser Val
 980 985 990
 Ala Thr Leu Val Leu Asn Phe Val Phe Gln Ala Phe Gln Ile Gly Ser
 995 1000 1005
 Asn Leu Trp Leu Thr Gln Trp Ala Asn Asp Gln Asn Val Ala Asn Asp
 1010 1015 1020
 Thr Gly Leu Arg Asp Met Tyr Leu Gly Val Tyr Gly Ala Phe Gly Phe
 1025 1030 1035 1040
 Gly Gln Gly Leu Cys Asn Tyr Gly Ala Ala Ile Ser Leu Phe Thr Ala
 1045 1050 1055
 Thr Leu His Ala Ser Ser Arg Val Phe His Arg Leu Phe Asn Asn Ile
 1060 1065 1070
 Met His Cys Pro Ser Glu Phe Phe Asp Thr Thr Pro Lys Gly Arg Ile
 1075 1080 1085
 Leu Asp Arg Cys Ser Ser Asp Val Asn Cys Leu Asp Leu Val Met Pro
 1090 1095 1100
 Leu Asn Ile Arg Met Val Met Ser Thr Ala Phe Gln Val Leu Ala Thr
 1105 1110 1115 1120
 Ile Val Val Ile Ser Leu Ser Thr Pro Ile Phe Leu Ala Val Ile Val
 1125 1130 1135
 Pro Ile Ala Phe Leu Tyr Tyr Phe Ala Gln Arg Phe Tyr Val Ala Thr
 1140 1145 1150

Ser Arg Gln Leu Met Arg Leu Glu Ser Val Ser Arg Ser Pro Ile Tyr
 1155 1160 1165
 Ser His Phe Ser Glu Thr Val Thr Gly Ala Ser Thr Ile Arg Ala Tyr
 1170 1175 1180
 Asn Val Gly Asp Arg Phe Ile Glu Glu Ser Asp Ala Lys Val Asp Lys
 1185 1190 1195 1200
 Asn Gln Val Cys Lys Tyr Pro Ser Val Ile Ala Asn Arg Trp Leu Ala
 1205 1210 1215
 Ile Arg Leu Glu Met Val Gly Asn Leu Ile Ile Leu Phe Ala Ser Leu
 1220 1225 1230
 Phe Ala Val Leu Gly Gly Gln Thr Asn Pro Gly Leu Val Gly Leu Ser
 1235 1240 1245
 Val Ser Tyr Ala Leu Gln Val Thr Gln Thr Leu Asn Trp Leu Val Arg
 1250 1255 1260
 Met Ser Ser Asp Ile Glu Thr Asn Ile Val Ser Val Glu Arg Ile Lys
 1265 1270 1275 1280
 Glu Tyr Gly Glu Thr Lys Gln Glu Ala Pro Trp Glu Leu Glu Gln Asp
 1285 1290 1295
 Lys Asn Lys Pro Lys Asn Trp Pro Gln Glu Gly Arg Val Glu Phe Gln
 1300 1305 1310
 Asn Phe Gln Val Arg Tyr Arg Glu Gly Leu Asp Leu Val Leu Arg Gly
 1315 1320 1325
 Val Ser Phe Asn Ile Gln Gly Glu Lys Val Gly Ile Val Gly Arg
 1330 1335 1340
 Thr Gly Ala Gly Lys Ser Ser Leu Thr Leu Ala Leu Phe Arg Ile Ile
 1345 1350 1355 1360
 Glu Ala Ala Gly Gly Arg Ile Ser Ile Asp Gly Val Asp Ile Ala Ser
 1365 1370 1375
 Met Gly Leu His Met Leu Arg Ser Arg Leu Thr Ile Ile Pro Gln Asp
 1380 1385 1390
 Pro Val Leu Phe Ser Gly Ser Leu Arg Ile Asn Leu Asp Pro Phe Glu
 1395 1400 1405
 Ile Lys Thr Asp Asp Glu Ile Trp Lys Ala Leu Glu Leu Ser His Leu
 1410 1415 1420
 Lys Ser Phe Val Lys Ser Leu Ala Ala Gly Leu Asn His Glu Ile Ala
 1425 1430 1435 1440
 Glu Gly Gly Glu Asn Leu Ser Val Gly Gln Arg Gln Leu Val Cys Leu
 1445 1450 1455

Ala Arg Ala Leu Leu Arg Lys Thr Lys Val Leu Val Leu Asp Glu Ala
 1460 1465 1470

Thr Ala Ala Val Asp Leu Glu Thr Asp Asp Leu Ile Gln Lys Thr Ile
 1475 1480 1485

Arg Thr Glu Phe Lys Glu Cys Thr Val Leu Thr Ile Ala His Arg Leu
 1490 1495 1500

Asn Thr Ile Leu Asp Ser Asp Lys Val Ile Val Leu Asp Lys Gly Gln
 1505 1510 1515 1520

Ile Ile Glu Phe Ala Ser Pro Thr Glu Leu Leu Asp Asn Pro Lys Ser
 1525 1530 1535

Ala Phe

<210> 22
 <211> 1538
 <212> PRT
 <213> Drosophila melanogaster

<400> 22
 Met Ala Asp Asp Thr Ser Ser Pro Met Asp Arg Phe Cys Gly Ser Thr
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Phe Trp Asn Ala Thr Glu Thr Trp Tyr Thr Asn Asp Pro Asp Phe Thr
 20 25 30

Pro Cys Phe Glu Gln Thr Ala Leu Val Trp Thr Pro Cys Ala Phe Tyr
 35 40 45

Trp Ala Phe Val Ile Phe Asp Phe Tyr Tyr Leu Lys Ala Ser Leu Asp
 50 55 60

Arg Asn Ile Pro Trp Asn Lys Leu Asn Val Ser Lys Ala Leu Val Asn
 65 70 75 80

Leu Gly Leu Leu Val Ile Thr Ala Leu Asp Leu Ile Met Ala Leu Val
 85 90 95

Lys Lys Gly Gly Asp Ser Glu Leu Pro Leu Tyr Asp Leu Asp Val Trp
 100 105 110

Gly Pro Ile Ile Lys Phe Ala Thr Phe Leu Leu Leu Phe Ile Phe Ile
 115 120 125

Pro Leu Asn Arg Lys Tyr Gly Val Gln Thr Thr Gly Cys Gln Phe Ile
 130 135 140

Phe Trp Phe Leu Leu Thr Val Leu Ser Ile Pro Arg Cys Arg Thr Glu
 145 150 155 160

Val Arg Leu Asp Ala Glu Arg Gln Lys Ile Leu Asn Ser Gln Gln Pro
 165 170 175

Ser Glu Gln Asp Phe Ser Trp Glu Glu Tyr Gln Phe Val Ser Phe Phe
 180 185 190
 Ile Phe Phe Thr Phe Thr Ser Ile Met Leu Ile Leu Asn Cys Phe Ala
 195 200 205
 Asp Gly Met Pro Arg Gln Thr Lys Tyr Gln Arg Gly Glu Asn Glu Ile
 210 215 220
 Pro Glu Leu Ser Ala Ser Phe Leu Ser Arg Ile Thr Tyr Gln Trp Phe
 225 230 235 240
 Asp Lys Met Ala Leu Lys Gly Tyr Arg Asn Pro Leu Glu Glu Lys Asp
 245 250 255
 Leu Trp Asp Leu Arg Pro Gln Asp Ser Cys Ser Glu Val Met Pro Ile
 260 265 270
 Phe Ala His His Trp Asn Gln Asn Val Arg Lys Asn Tyr Lys Asn Lys
 275 280 285
 Ala Arg Val Glu Pro Lys Ala Gln Phe Ser Asn Gly Asn Val Thr Phe
 290 295 300
 Glu Asn Pro His Gly Glu Lys Asn Gly Arg Lys Lys Gly Met Ala Ser
 305 310 315 320
 Ile Met Pro Pro Ile Tyr Lys Ser Phe Gly Gly Val Phe Leu Phe Gly
 325 330 335
 Ala Leu Met Lys Leu Phe Thr Asp Thr Leu Thr Phe Ala Gln Pro Gln
 340 345 350
 Val Leu Ser Leu Ile Ile Ser Phe Val Glu Ala Gln Asp Ala Glu Pro
 355 360 365
 Glu Trp Lys Gly Ile Leu Tyr Ala Val Leu Leu Phe Val Leu Ala Ala
 370 375 380
 Ala Gln Thr Phe Ile Leu Gly Gln Tyr Phe His Arg Met Phe Ile Val
 385 390 395 400
 Gly Leu Arg Ile Arg Thr Ala Leu Ile Asn Ala Ile Tyr Arg Lys Ala
 405 410 415
 Leu Arg Ile Ser Asn Ser Thr Lys Lys Glu Ser Thr Val Gly Glu Ile
 420 425 430
 Val Asn Leu Met Ala Val Asp Ala Gln Arg Phe Met Glu Leu Thr Thr
 435 440 445
 Tyr Leu Asn Met Ile Trp Ser Ala Pro Leu Gln Ile Gly Leu Ala Leu
 450 455 460
 Tyr Phe Leu Trp Gln Gln Leu Gly Pro Ser Val Leu Ala Gly Leu Ala
 465 470 475 480

Val Met Ile Ile Leu Ile Pro Val Asn Gly Val Ile Ala Ser Arg Ile
 485 490 495
 Lys Thr Tyr Gln Ile Arg Gln Met Lys Tyr Lys Asp Glu Arg Val Lys
 500 505 510
 Leu Met Asn Glu Val Leu Ser Gly Ile Lys Val Leu Lys Leu Tyr Ala
 515 520 525
 Trp Glu Pro Ser Phe Glu Lys Gln Val Leu Asp Ile Arg Asp Lys Glu
 530 535 540
 Ile Ala Thr Leu Arg Ser Thr Ala Tyr Leu Asn Ala Gly Thr Ser Phe
 545 550 555 560
 Leu Trp Ser Cys Ala Pro Phe Leu Val Ser Leu Val Thr Phe Ala Thr
 565 570 575
 Tyr Val Leu Thr Ser Glu Ala Asn Gln Leu Ser Val Glu Lys Val Leu
 580 585 590
 Val Ser Ile Ala Leu Phe Asp Leu Met Lys Leu Pro Leu Thr Ile Leu
 595 600 605
 Pro Met Leu Ser Val Asp Ile Ala Glu Thr Gln Val Ser Val Asn Arg
 610 615 620
 Ile Asn Lys Phe Leu Asn Ser Glu Glu Leu Asp Pro Asn Ser Val Leu
 625 630 635 640
 His Asp Ser Ser Lys Pro His Pro Met Ser Ile Glu Asn Gly Glu Phe
 645 650 655
 Ser Trp Gly Asp Glu Ile Thr Leu Arg Asn Ile Asn Ile Glu Val Lys
 660 665 670
 Lys Gly Ser Leu Val Ala Leu Val Gly Thr Val Gly Ser Gly Lys Ser
 675 680 685
 Ser Val Val Gln Ala Phe Leu Gly Glu Met Glu Lys Leu Ala Gly Val
 690 695 700
 Val Asn Thr Val Gly Lys Leu Ala Tyr Val Pro Gln Gln Ala Trp Ile
 705 710 715 720
 Gln Asn Ala Thr Val Arg Asp Asn Ile Leu Phe Gly Gln Thr Tyr Asp
 725 730 735
 Arg Lys Arg Tyr Asn Lys Val Ile Asp Ala Cys Ala Leu Arg Ala Asp
 740 745 750
 Ile Asp Ile Leu Ser Ala Gly Asp Leu Thr Glu Ile Gly Glu Lys Gly
 755 760 765
 Ile Asn Leu Ser Gly Gly Gln Lys Gln Arg Ile Ser Leu Ala Arg Ala
 770 775 780

Val Tyr Ser Asp Ala Asp Leu Tyr Leu Leu Asp Asp Pro Leu Ser Ala
 785 790 795 800

Val Asp Ala His Val Gly Lys His Ile Phe Glu Glu Val Ile Gly Pro
 805 810 815

Lys Gly Ile Leu Ala Arg Lys Ser Arg Val Leu Val Thr His Gly Val
 820 825 830

Thr Phe Leu Pro Gln Val Asp Ser Ile Tyr Val Ile Lys Met Gly Glu
 835 840 845

Ile Ser Glu Ser Gly Thr Phe Asp Gln Leu Val Lys Asn Lys Gly Ala
 850 855 860

Phe Ala Asp Phe Ile Ile Gln His Leu Gln Glu Gly Asn Glu Glu Glu
 865 870 875 880

Glu Glu Leu Asn Gln Ile Lys Arg Gln Ile Ser Ser Thr Ala Asp Val
 885 890 895

Pro Glu Leu Leu Gly Thr Val Glu Lys Ala Ile Lys Leu Ala Arg Thr
 900 905 910

Glu Ser Leu Ser Asp Ser Ile Ser Val Thr Ser Ala Asp Ser Leu Met
 915 920 925

Gly Gly Gly Ser Leu Arg Arg Arg Thr Lys Arg Gln Asp Ser His
 930 935 940

Asp Ser Val Ala Ser Ala Ala Ser Leu Lys Lys Lys Gln Glu Val Glu
 945 950 955 960

Gly Lys Leu Ile Glu Thr Glu Lys Ser Gln Thr Gly Gly Val Glu Phe
 965 970 975

Ala Val Tyr Lys His Tyr Ile Lys Ser Val Gly Ile Phe Leu Ser Val
 980 985 990

Ala Thr Leu Val Leu Asn Phe Val Phe Gln Ala Phe Gln Ile Gly Ser
 995 1000 1005

Asn Leu Trp Leu Thr Gln Trp Ala Asn Asp Gln Asn Val Ala Asn Asp
 1010 1015 1020

Thr Gly Leu Arg Asp Met Tyr Leu Gly Val Tyr Gly Ala Phe Gly Phe
 1025 1030 1035 1040

Gly Gln Gly Phe Thr Ser Phe Phe Ser Asp Leu Ala Pro Ala Leu Gly
 1045 1050 1055

Ser Leu His Ala Ala Lys Val Leu His Ser Met Leu Leu Glu Asn Val
 1060 1065 1070

Leu Arg Ala Pro Met Thr Met Phe Asp Thr Thr Pro Val Gly Arg Ile
 1075 1080 1085

Leu Ser Arg Phe Ser Lys Asp Val Glu Ser Val Asp Gln Lys Met Pro
 1090 1095 1100
 Gln Val Ile Asn Asp Cys Ile Trp Cys Ala Phe Glu Val Leu Ala Thr
 1105 1110 1115 1120
 Ile Val Val Ile Ser Leu Ser Thr Pro Ile Phe Leu Ala Val Ile Val
 1125 1130 1135
 Pro Ile Ala Phe Leu Tyr Tyr Phe Ala Gln Arg Phe Tyr Val Ala Thr
 1140 1145 1150
 Ser Arg Gln Leu Met Arg Leu Glu Ser Val Ser Arg Ser Pro Ile Tyr
 1155 1160 1165
 Ser His Phe Ser Glu Thr Val Thr Gly Ala Ser Thr Ile Arg Ala Tyr
 1170 1175 1180
 Asn Val Gly Asp Arg Phe Ile Glu Glu Ser Asp Ala Lys Val Asp Lys
 1185 1190 1195 1200
 Asn Gln Val Cys Lys Tyr Pro Ser Val Ile Ala Asn Arg Trp Leu Ala
 1205 1210 1215
 Ile Arg Leu Glu Met Val Gly Asn Leu Ile Ile Leu Phe Ala Ser Leu
 1220 1225 1230
 Phe Ala Val Leu Gly Gly Gln Thr Asn Pro Gly Leu Val Gly Leu Ser
 1235 1240 1245
 Val Ser Tyr Ala Leu Gln Val Thr Gln Thr Leu Asn Trp Leu Val Arg
 1250 1255 1260
 Met Ser Ser Asp Ile Glu Thr Asn Ile Val Ser Val Glu Arg Ile Lys
 1265 1270 1275 1280
 Glu Tyr Gly Glu Thr Lys Gln Glu Ala Pro Trp Glu Leu Glu Gln Asp
 1285 1290 1295
 Lys Asn Lys Pro Lys Asn Trp Pro Gln Glu Gly Arg Val Glu Phe Gln
 1300 1305 1310
 Asn Phe Gln Val Arg Tyr Arg Glu Gly Leu Asp Leu Val Leu Arg Gly
 1315 1320 1325
 Val Ser Phe Asn Ile Gln Gly Gly Glu Lys Val Gly Ile Val Gly Arg
 1330 1335 1340
 Thr Gly Ala Gly Lys Ser Ser Leu Thr Leu Ala Leu Phe Arg Ile Ile
 1345 1350 1355 1360
 Glu Ala Ala Gly Gly Arg Ile Ser Ile Asp Gly Val Asp Ile Ala Ser
 1365 1370 1375
 Met Gly Leu His Met Leu Arg Ser Arg Leu Thr Ile Ile Pro Gln Asp
 1380 1385 1390

Pro Val Leu Phe Ser Gly Ser Leu Arg Ile Asn Leu Asp Pro Phe Glu
 1395 1400 1405

Ile Lys Thr Asp Asp Glu Ile Trp Lys Ala Leu Glu Leu Ser His Leu
 1410 1415 1420

Lys Ser Phe Val Lys Ser Leu Ala Ala Gly Leu Asn His Glu Ile Ala
 1425 1430 1435 1440

Glu Gly Gly Glu Asn Leu Ser Val Gly Gln Arg Gln Leu Val Cys Leu
 1445 1450 1455

Ala Arg Ala Leu Leu Arg Lys Thr Lys Val Leu Val Leu Asp Glu Ala
 1460 1465 1470

Thr Ala Ala Val Asp Leu Glu Thr Asp Asp Leu Ile Gln Lys Thr Ile
 1475 1480 1485

Arg Thr Glu Phe Lys Glu Cys Thr Val Leu Thr Ile Ala His Arg Leu
 1490 1495 1500

Asn Thr Ile Leu Asp Ser Asp Lys Val Ile Val Leu Asp Lys Gly Gln
 1505 1510 1515 1520

Ile Ile Glu Phe Ala Ser Pro Thr Glu Leu Leu Asp Asn Pro Lys Ser
 1525 1530 1535

Ala Phe

<210> 23

<211> 1538

<212> PRT

<213> Drosophila melanogaster

<400> 23

Met Ala Asp Asp Thr Ser Ser Pro Met Asp Arg Phe Cys Gly Ser Thr
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Phe Trp Asn Ala Thr Glu Thr Trp Tyr Thr Asn Asp Pro Asp Phe Thr
 20 25 30

Pro Cys Phe Glu Gln Thr Ala Leu Val Trp Thr Pro Cys Ala Phe Tyr
 35 40 45

Trp Ala Phe Val Ile Phe Asp Phe Tyr Tyr Leu Lys Ala Ser Leu Asp
 50 55 60

Arg Asn Ile Pro Trp Asn Lys Leu Asn Val Ser Lys Ala Leu Val Asn
 65 70 75 80

Leu Gly Leu Leu Val Ile Thr Ala Leu Asp Leu Ile Met Ala Leu Val
 85 90 95

Lys Lys Gly Gly Asp Ser Glu Leu Pro Leu Tyr Asp Leu Asp Val Trp
 100 105 110

Gly Pro Ile Ile Lys Phe Ala Thr Phe Leu Leu Leu Phe Ile Phe Ile
 115 120 125

Pro Leu Asn Arg Lys Tyr Gly Val Gln Thr Thr Gly Cys Gln Phe Ile
 130 135 140

Phe Trp Phe Leu Leu Thr Val Leu Ser Ile Pro Arg Cys Arg Thr Glu
 145 150 155 160

Val Arg Leu Asp Ala Glu Arg Gln Lys Ile Leu Asn Ser Gln Gln Pro
 165 170 175

Ser Glu Gln Asp Phe Ser Trp Glu Glu Tyr Gln Phe Val Ser Phe Phe
 180 185 190

Ile Phe Phe Thr Phe Thr Ser Ile Met Leu Ile Leu Asn Cys Phe Ala
 195 200 205

Asp Gly Met Pro Arg Gln Thr Lys Tyr Gln Arg Gly Glu Asn Glu Ile
 210 215 220

Pro Glu Leu Ser Ala Ser Phe Leu Ser Arg Ile Thr Tyr Gln Trp Phe
 225 230 235 240

Asp Lys Met Ala Leu Lys Gly Tyr Arg Asn Pro Leu Glu Glu Lys Asp
 245 250 255

Leu Trp Asp Leu Arg Pro Gln Asp Ser Cys Ser Glu Val Met Pro Ile
 260 265 270

Phe Ala His His Trp Asn Gln Asn Val Arg Lys Asn Tyr Lys Asn Lys
 275 280 285

Ala Arg Val Glu Pro Lys Ala Gln Phe Ser Asn Gly Asn Val Thr Phe
 290 295 300

Glu Asn Pro His Gly Glu Lys Asn Gly Arg Lys Lys Gly Met Ala Ser
 305 310 315 320

Ile Met Pro Pro Ile Tyr Lys Ser Phe Gly Gly Val Phe Leu Phe Gly
 325 330 335

Ala Leu Met Lys Leu Phe Thr Asp Thr Leu Thr Phe Ala Gln Pro Gln
 340 345 350

Val Leu Ser Leu Ile Ile Ser Phe Val Glu Ala Gln Asp Ala Glu Pro
 355 360 365

Glu Trp Lys Gly Ile Leu Tyr Ala Val Leu Leu Phe Val Leu Ala Ala
 370 375 380

Ala Gln Thr Phe Ile Leu Gly Gln Tyr Phe His Arg Met Phe Ile Val
 385 390 395 400

Gly Leu Arg Ile Arg Thr Ala Leu Ile Asn Ala Ile Tyr Arg Lys Ala
 405 . 410 415

Leu Arg Ile Ser Asn Ser Thr Lys Lys Glu Ser Thr Val Gly Glu Ile
 420 425 430
 Val Asn Leu Met Ala Val Asp Ala Gln Arg Phe Met Glu Leu Thr Thr
 435 440 445
 Tyr Leu Asn Met Ile Trp Ser Ala Pro Leu Gln Ile Gly Leu Ala Leu
 450 455 460
 Tyr Phe Leu Trp Gln Gln Leu Gly Pro Ser Val Leu Ala Gly Leu Ala
 465 470 475 480
 Val Met Ile Ile Leu Ile Pro Val Asn Gly Val Ile Ala Ser Arg Ile
 485 490 495
 Lys Thr Tyr Gln Ile Arg Gln Met Lys Tyr Lys Asp Glu Arg Val Lys
 500 505 510
 Leu Met Asn Glu Val Leu Ser Gly Ile Lys Val Leu Lys Leu Tyr Ala
 515 520 525
 Trp Glu Pro Ser Phe Glu Lys Gln Val Leu Asp Ile Arg Asp Lys Glu
 530 535 540
 Ile Ala Thr Leu Arg Ser Thr Ala Tyr Leu Asn Ala Gly Thr Ser Phe
 545 550 555 560
 Leu Trp Ser Cys Ala Pro Phe Leu Val Ser Leu Val Thr Phe Ala Thr
 565 570 575
 Tyr Val Leu Ile Asp Glu Asn Asn Val Leu Asp Ala Thr Lys Thr Phe
 580 585 590
 Val Ser Leu Ser Leu Phe Asn Ile Leu Arg Phe Pro Leu Thr Met Leu
 595 600 605
 Pro Met Leu Ile Thr Asn Leu Val Gln Thr Gln Val Ser Val Asn Arg
 610 615 620
 Ile Asn Lys Phe Leu Asn Ser Glu Glu Leu Asp Pro Asn Ser Val Leu
 625 630 635 640
 His Asp Ser Ser Lys Pro His Pro Met Ser Ile Glu Asn Gly Glu Phe
 645 650 655
 Ser Trp Gly Asp Glu Ile Thr Leu Arg Asn Ile Asn Ile Glu Val Lys
 660 665 670
 Lys Gly Ser Leu Val Ala Leu Val Gly Thr Val Gly Ser Gly Lys Ser
 675 680 685
 Ser Val Val Gln Ala Phe Leu Gly Glu Met Glu Lys Leu Ala Gly Val
 690 695 700
 Val Asn Thr Val Gly Lys Leu Ala Tyr Val Pro Gln Gln Ala Trp Ile
 705 710 715 720

Gln Asn Ala Thr Val Arg Asp Asn Ile Leu Phe Gly Gln Thr Tyr Asp
 725 730 735
 Arg Lys Arg Tyr Asn Lys Val Ile Asp Ala Cys Ala Leu Arg Ala Asp
 740 745 750
 Ile Asp Ile Leu Ser Ala Gly Asp Leu Thr Glu Ile Gly Glu Lys Gly
 755 760 765
 Ile Asn Leu Ser Gly Gly Gln Lys Gln Arg Ile Ser Leu Ala Arg Ala
 770 775 780
 Val Tyr Ser Asp Ala Asp Leu Tyr Leu Leu Asp Asp Pro Leu Ser Ala
 785 790 795 800
 Val Asp Ala His Val Gly Lys His Ile Phe Glu Glu Val Ile Gly Pro
 805 810 815
 Lys Gly Ile Leu Ala Arg Lys Ser Arg Val Leu Val Thr His Gly Val
 820 825 830
 Thr Phe Leu Pro Gln Val Asp Ser Ile Tyr Val Ile Lys Met Gly Glu
 835 840 845
 Ile Ser Glu Ser Gly Thr Phe Asp Gln Leu Val Lys Asn Lys Gly Ala
 850 855 860
 Phe Ala Asp Phe Ile Ile Gln His Leu Gln Glu Gly Asn Glu Glu
 865 870 875 880
 Glu Glu Leu Asn Gln Ile Lys Arg Gln Ile Ser Ser Thr Ala Asp Val
 885 890 895
 Pro Glu Leu Leu Gly Thr Val Glu Lys Ala Ile Lys Leu Ala Arg Thr
 900 905 910
 Glu Ser Leu Ser Asp Ser Ile Ser Val Thr Ser Ala Asp Ser Leu Met
 915 920 925
 Gly Gly Gly Ser Leu Arg Arg Arg Thr Lys Arg Gln Asp Ser His
 930 935 940
 Asp Ser Val Ala Ser Ala Ala Ser Leu Lys Lys Lys Gln Glu Val Glu
 945 950 955 960
 Gly Lys Leu Ile Glu Thr Glu Lys Ser Gln Thr Gly Gly Val Glu Phe
 965 970 975
 Ala Val Tyr Lys His Tyr Ile Lys Ser Val Gly Ile Phe Leu Ser Val
 980 985 990
 Ala Thr Leu Val Leu Asn Phe Val Phe Gln Ala Phe Gln Ile Gly Ser
 995 1000 1005
 Asn Leu Trp Leu Thr Gln Trp Ala Asn Asp Gln Asn Val Ala Asn Asp
 1010 1015 1020

Thr Gly Leu Arg Asp Met Tyr Leu Gly Val Tyr Gly Ala Phe Gly Phe
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 Gly Gln Val Ala Thr Asn Phe Phe Ser Ser Leu Ala Ile Ser Leu Gly
 1045 1050 1055
 Cys Leu Lys Cys Ser Gln Leu Leu His Gln Thr Leu Leu Tyr Tyr Asn
 1060 1065 1070
 Leu Arg Trp Pro Met Glu Leu Phe Asp Thr Thr Pro Leu Gly Arg Ile
 1075 1080 1085
 Val Asn Arg Phe Ser Lys Asp Ile Asp Thr Ile Asp Asn Val Leu Pro
 1090 1095 1100
 Phe Asn Ile Arg Val Val Ile Gly Gln Ala Tyr Met Val Leu Ala Thr
 1105 1110 1115 1120
 Ile Val Val Ile Ser Leu Ser Thr Pro Ile Phe Leu Ala Val Ile Val
 1125 1130 1135
 Pro Ile Ala Phe Leu Tyr Tyr Phe Ala Gln Arg Phe Tyr Val Ala Thr
 1140 1145 1150
 Ser Arg Gln Leu Met Arg Leu Glu Ser Val Ser Arg Ser Pro Ile Tyr
 1155 1160 1165
 Ser His Phe Ser Glu Thr Val Thr Gly Ala Ser Thr Ile Arg Ala Tyr
 1170 1175 1180
 Asn Val Gly Asp Arg Phe Ile Glu Glu Ser Asp Ala Lys Val Asp Lys
 1185 1190 1195 1200
 Asn Gln Val Cys Lys Tyr Pro Ser Val Ile Ala Asn Arg Trp Leu Ala
 1205 1210 1215
 Ile Arg Leu Glu Met Val Gly Asn Leu Ile Ile Leu Phe Ala Ser Leu
 1220 1225 1230
 Phe Ala Val Leu Gly Gly Gln Thr Asn Pro Gly Leu Val Gly Leu Ser
 1235 1240 1245
 Val Ser Tyr Ala Leu Gln Val Thr Gln Thr Leu Asn Trp Leu Val Arg
 1250 1255 1260
 Met Ser Ser Asp Ile Glu Thr Asn Ile Val Ser Val Glu Arg Ile Lys
 1265 1270 1275 1280
 Glu Tyr Gly Glu Thr Lys Gln Glu Ala Pro Trp Glu Leu Glu Gln Asp
 1285 1290 1295
 Lys Asn Lys Pro Lys Asn Trp Pro Gln Glu Gly Arg Val Glu Phe Gln
 1300 1305 1310
 Asn Phe Gln Val Arg Tyr Arg Glu Gly Leu Asp Leu Val Leu Arg Gly
 1315 1320 1325

Val Ser Phe Asn Ile Gln Gly Gly Glu Lys Val Gly Ile Val Gly Arg
 1330 1335 1340

Thr Gly Ala Gly Lys Ser Ser Leu Thr Leu Ala Leu Phe Arg Ile Ile
 1345 1350 1355 1360

Glu Ala Ala Gly Gly Arg Ile Ser Ile Asp Gly Val Asp Ile Ala Ser
 1365 1370 1375

Met Gly Leu His Met Leu Arg Ser Arg Leu Thr Ile Ile Pro Gln Asp
 1380 1385 1390

Pro Val Leu Phe Ser Gly Ser Leu Arg Ile Asn Leu Asp Pro Phe Glu
 1395 1400 1405

Ile Lys Thr Asp Asp Glu Ile Trp Lys Ala Leu Glu Leu Ser His Leu
 1410 1415 1420

Lys Ser Phe Val Lys Ser Leu Ala Ala Gly Leu Asn His Glu Ile Ala
 1425 1430 1435 1440

Glu Gly Gly Glu Asn Leu Ser Val Gly Gln Arg Gln Leu Val Cys Leu
 1445 1450 1455

Ala Arg Ala Leu Leu Arg Lys Thr Lys Val Leu Val Leu Asp Glu Ala
 1460 1465 1470

Thr Ala Ala Val Asp Leu Glu Thr Asp Asp Leu Ile Gln Lys Thr Ile
 1475 1480 1485

Arg Thr Glu Phe Lys Glu Cys Thr Val Leu Thr Ile Ala His Arg Leu
 1490 1495 1500

Asn Thr Ile Leu Asp Ser Asp Lys Val Ile Val Leu Asp Lys Gly Gln
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Ile Ile Glu Phe Ala Ser Pro Thr Glu Leu Leu Asp Asn Pro Lys Ser
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Ala Phe

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 <212> PRT
 <213> Drosophila melanogaster

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Pro Cys Phe Glu Gln Thr Ala Leu Val Trp Thr Pro Cys Ala Phe Tyr
 35 40 45

Trp Ala Phe Val Ile Phe Asp Phe Tyr Tyr Leu Lys Ala Ser Leu Asp
 50 55 60

Arg Asn Ile Pro Trp Asn Lys Leu Asn Val Ser Lys Ala Leu Val Asn
 65 70 75 80

Leu Gly Leu Leu Val Ile Thr Ala Leu Asp Leu Ile Met Ala Leu Val
 85 90 95

Lys Lys Gly Gly Asp Ser Glu Leu Pro Leu Tyr Asp Leu Asp Val Trp
 100 105 110

Gly Pro Ile Ile Lys Phe Ala Thr Phe Leu Leu Leu Phe Ile Phe Ile
 115 120 125

Pro Leu Asn Arg Lys Tyr Gly Val Gln Thr Thr Gly Cys Gln Phe Ile
 130 135 140

Phe Trp Phe Leu Leu Thr Val Leu Ser Ile Pro Arg Cys Arg Thr Glu
 145 150 155 160

Val Arg Leu Asp Ala Glu Arg Gln Lys Ile Leu Asn Ser Gln Gln Pro
 165 170 175

Ser Glu Gln Asp Phe Ser Trp Glu Glu Tyr Gln Phe Val Ser Phe Phe
 180 185 190

Ile Phe Phe Thr Phe Thr Ser Ile Met Leu Ile Leu Asn Cys Phe Ala
 195 200 205

Asp Gly Met Pro Arg Gln Thr Lys Tyr Gln Arg Gly Glu Asn Glu Ile
 210 215 220

Pro Glu Leu Ser Ala Ser Phe Leu Ser Arg Ile Thr Tyr Gln Trp Phe
 225 230 235 240

Asp Lys Met Ala Leu Lys Gly Tyr Arg Asn Pro Leu Glu Glu Lys Asp
 245 250 255

Leu Trp Asp Leu Arg Pro Gln Asp Ser Cys Ser Glu Val Met Pro Ile
 260 265 270

Phe Ala His His Trp Asn Gln Asn Val Arg Lys Asn Tyr Lys Asn Lys
 275 280 285

Ala Arg Val Glu Pro Lys Ala Gln Phe Ser Asn Gly Asn Val Thr Phe
 290 295 300

Glu Asn Pro His Gly Glu Lys Asn Gly Arg Lys Lys Gly Met Ala Ser
 305 310 315 320

Ile Met Pro Pro Ile Tyr Lys Ser Phe Gly Gly Val Phe Leu Phe Gly
 325 330 335

Ala Leu Met Lys Leu Phe Thr Asp Thr Leu Thr Phe Ala Gln Pro Gln
 340 345 350

Val Leu Ser Leu Ile Ile Ser Phe Val Glu Ala Gln Asp Ala Glu Pro
 355 360 365
 Glu Trp Lys Gly Ile Leu Tyr Ala Val Leu Leu Phe Val Leu Ala Ala
 370 375 380
 Ala Gln Thr Phe Ile Leu Gly Gln Tyr Phe His Arg Met Phe Ile Val
 385 390 395 400
 Gly Leu Arg Ile Arg Thr Ala Leu Ile Asn Ala Ile Tyr Arg Lys Ala
 405 410 415
 Leu Arg Ile Ser Asn Ser Thr Lys Lys Glu Ser Thr Val Gly Glu Ile
 420 425 430
 Val Asn Leu Met Ala Val Asp Ala Gln Arg Phe Met Glu Leu Thr Thr
 435 440 445
 Tyr Leu Asn Met Ile Trp Ser Ala Pro Leu Gln Ile Gly Leu Ala Leu
 450 455 460
 Tyr Phe Leu Trp Gln Gln Leu Gly Pro Ser Val Leu Ala Gly Leu Ala
 465 470 475 480
 Val Met Ile Ile Leu Ile Pro Val Asn Gly Val Ile Ala Ser Arg Ile
 485 490 495
 Lys Thr Tyr Gln Ile Arg Gln Met Lys Tyr Lys Asp Glu Arg Val Lys
 500 505 510
 Leu Met Asn Glu Val Leu Ser Gly Ile Lys Val Leu Lys Leu Tyr Ala
 515 520 525
 Trp Glu Pro Ser Phe Glu Lys Gln Val Leu Asp Ile Arg Asp Lys Glu
 530 535 540
 Ile Ala Thr Leu Arg Ser Thr Ala Tyr Leu Asn Ala Gly Thr Ser Phe
 545 550 555 560
 Leu Trp Ser Cys Ala Pro Phe Leu Val Ser Leu Val Thr Phe Ala Thr
 565 570 575
 Tyr Val Leu Ile Asp Glu Asn Asn Val Leu Asp Ala Thr Lys Thr Phe
 580 585 590
 Val Ser Leu Ser Leu Phe Asn Ile Leu Arg Phe Pro Leu Thr Met Leu
 595 600 605
 Pro Met Leu Ile Thr Asn Leu Val Gln Thr Gln Val Ser Val Asn Arg
 610 615 620
 Ile Asn Lys Phe Leu Asn Ser Glu Glu Leu Asp Pro Asn Ser Val Leu
 625 630 635 640
 His Asp Ser Ser Lys Pro His Pro Met Ser Ile Glu Asn Gly Glu Phe
 645 650 655

Ser Trp Gly Asp Glu Ile Thr Leu Arg Asn Ile Asn Ile Glu Val Lys
 660 665 670
 Lys Gly Ser Leu Val Ala Leu Val Gly Thr Val Gly Ser Gly Lys Ser
 675 680 685
 Ser Val Val Gln Ala Phe Leu Gly Glu Met Glu Lys Leu Ala Gly Val
 690 695 700
 Val Asn Thr Val Gly Lys Leu Ala Tyr Val Pro Gln Gln Ala Trp Ile
 705 710 715 720
 Gln Asn Ala Thr Val Arg Asp Asn Ile Leu Phe Gly Gln Thr Tyr Asp
 725 730 735
 Arg Lys Arg Tyr Asn Lys Val Ile Asp Ala Cys Ala Leu Arg Ala Asp
 740 745 750
 Ile Asp Ile Leu Ser Ala Gly Asp Leu Thr Glu Ile Gly Glu Lys Gly
 755 760 765
 Ile Asn Leu Ser Gly Gly Gln Lys Gln Arg Ile Ser Leu Ala Arg Ala
 770 775 780
 Val Tyr Ser Asp Ala Asp Leu Tyr Leu Leu Asp Asp Pro Leu Ser Ala
 785 790 795 800
 Val Asp Ala His Val Gly Lys His Ile Phe Glu Glu Val Ile Gly Pro
 805 810 815
 Lys Gly Ile Leu Ala Arg Lys Ser Arg Val Leu Val Thr His Gly Val
 820 825 830
 Thr Phe Leu Pro Gln Val Asp Ser Ile Tyr Val Ile Lys Met Gly Glu
 835 840 845
 Ile Ser Glu Ser Gly Thr Phe Asp Gln Leu Val Lys Asn Lys Gly Ala
 850 855 860
 Phe Ala Asp Phe Ile Ile Gln His Leu Gln Glu Gly Asn Glu Glu Glu
 865 870 875 880
 Glu Glu Leu Asn Gln Ile Lys Arg Gln Ile Ser Ser Thr Ala Asp Val
 885 890 895
 Pro Glu Leu Leu Gly Thr Val Glu Lys Ala Ile Lys Leu Ala Arg Thr
 900 905 910
 Glu Ser Leu Ser Asp Ser Ile Ser Val Thr Ser Ala Asp Ser Leu Met
 915 920 925
 Gly Gly Gly Ser Leu Arg Arg Arg Thr Lys Arg Gln Asp Ser His
 930 935 940
 Asp Ser Val Ala Ser Ala Ala Ser Leu Lys Lys Lys Gln Glu Val Glu
 945 950 955 960

Gly Lys Leu Ile Glu Thr Glu Lys Ser Gln Thr Gly Gly Val Glu Phe
 965 970 975

Ala Val Tyr Lys His Tyr Ile Lys Ser Val Gly Ile Phe Leu Ser Val
 980 985 990

Ala Thr Leu Val Leu Asn Phe Val Phe Gln Ala Phe Gln Ile Gly Ser
 995 1000 1005

Asn Leu Trp Leu Thr Gln Trp Ala Asn Asp Gln Asn Val Ala Asn Asp
 1010 1015 1020

Thr Gly Leu Arg Asp Met Tyr Leu Gly Val Tyr Gly Ala Phe Gly Phe
 1025 1030 1035 1040

Gly Gln Val Val Thr Gly Tyr Leu Ser Thr Leu Ile Leu Ser Leu Gly
 1045 1050 1055

Cys Val Tyr Ser Ala Arg Tyr Met His Asn Val Leu Leu His Gly Thr
 1060 1065 1070

Leu Arg Trp Pro Met Glu Met Phe Asp Ile Thr Pro Leu Gly Arg Ile
 1075 1080 1085

Val Asn Arg Phe Ser Lys Asp Val Asp Thr Ile Asp Asn Thr Leu Pro
 1090 1095 1100

Leu Asn Leu Arg Val Val Ile Leu Gln Leu Phe Ala Val Leu Ala Thr
 1105 1110 1115 1120

Ile Val Val Ile Ser Leu Ser Thr Pro Ile Phe Leu Ala Val Ile Val
 1125 1130 1135

Pro Ile Ala Phe Leu Tyr Tyr Phe Ala Gln Arg Phe Tyr Val Ala Thr
 1140 1145 1150

Ser Arg Gln Leu Met Arg Leu Glu Ser Val Ser Arg Ser Pro Ile Tyr
 1155 1160 1165

Ser His Phe Ser Glu Thr Val Thr Gly Ala Ser Thr Ile Arg Ala Tyr
 1170 1175 1180

Asn Val Gly Asp Arg Phe Ile Glu Glu Ser Asp Ala Lys Val Asp Lys
 1185 1190 1195 1200

Asn Gln Val Cys Lys Tyr Pro Ser Val Ile Ala Asn Arg Trp Leu Ala
 1205 1210 1215

Ile Arg Leu Glu Met Val Gly Asn Leu Ile Ile Leu Phe Ala Ser Leu
 1220 1225 1230

Phe Ala Val Leu Gly Gly Gln Thr Asn Pro Gly Leu Val Gly Leu Ser
 1235 1240 1245

Val Ser Tyr Ala Leu Gln Val Thr Gln Thr Leu Asn Trp Leu Val Arg
 1250 1255 1260

Met Ser Ser Asp Ile Glu Thr Asn Ile Val Ser Val Glu Arg Ile Lys
 1265 1270 1275 1280
 Glu Tyr Gly Glu Thr Lys Gln Glu Ala Pro Trp Glu Leu Glu Gln Asp
 1285 1290 1295
 Lys Asn Lys Pro Lys Asn Trp Pro Gln Glu Gly Arg Val Glu Phe Gln
 1300 1305 1310
 Asn Phe Gln Val Arg Tyr Arg Glu Gly Leu Asp Leu Val Leu Arg Gly
 1315 1320 1325
 Val Ser Phe Asn Ile Gln Gly Gly Glu Lys Val Gly Ile Val Gly Arg
 1330 1335 1340
 Thr Gly Ala Gly Lys Ser Ser Leu Thr Leu Ala Leu Phe Arg Ile Ile
 1345 1350 1355 1360
 Glu Ala Ala Gly Gly Arg Ile Ser Ile Asp Gly Val Asp Ile Ala Ser
 1365 1370 1375
 Met Gly Leu His Met Leu Arg Ser Arg Leu Thr Ile Ile Pro Gln Asp
 1380 1385 1390
 Pro Val Leu Phe Ser Gly Ser Leu Arg Ile Asn Leu Asp Pro Phe Glu
 1395 1400 1405
 Ile Lys Thr Asp Asp Glu Ile Trp Lys Ala Leu Glu Leu Ser His Leu
 1410 1415 1420
 Lys Ser Phe Val Lys Ser Leu Ala Ala Gly Leu Asn His Glu Ile Ala
 1425 1430 1435 1440
 Glu Gly Gly Glu Asn Leu Ser Val Gly Gln Arg Gln Leu Val Cys Leu
 1445 1450 1455
 Ala Arg Ala Leu Leu Arg Lys Thr Lys Val Leu Val Leu Asp Glu Ala
 1460 1465 1470
 Thr Ala Ala Val Asp Leu Glu Thr Asp Asp Leu Ile Gln Lys Thr Ile
 1475 1480 1485
 Arg Thr Glu Phe Lys Glu Cys Thr Val Leu Thr Ile Ala His Arg Leu
 1490 1495 1500
 Asn Thr Ile Leu Asp Ser Asp Lys Val Ile Val Leu Asp Lys Gly Gln
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 Ile Ile Glu Phe Ala Ser Pro Thr Glu Leu Leu Asp Asn Pro Lys Ser
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 Ala Phe

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 <212> PRT
 <213> Drosophila melanogaster

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 Pro Cys Phe Glu Gln Thr Ala Leu Val Trp Thr Pro Cys Ala Phe Tyr
 35 40 45
 Trp Ala Phe Val Ile Phe Asp Phe Tyr Tyr Leu Lys Ala Ser Leu Asp
 50 55 60
 Arg Asn Ile Pro Trp Asn Lys Leu Asn Val Ser Lys Ala Leu Val Asn
 65 70 75 80
 Leu Gly Leu Leu Val Ile Thr Ala Leu Asp Leu Ile Met Ala Leu Val
 85 90 95
 Lys Lys Gly Gly Asp Ser Glu Leu Pro Leu Tyr Asp Leu Asp Val Trp
 100 105 110
 Gly Pro Ile Ile Lys Phe Ala Thr Phe Leu Leu Leu Phe Ile Phe Ile
 115 120 125
 Pro Leu Asn Arg Lys Tyr Gly Val Gln Thr Thr Gly Cys Gln Phe Ile
 130 135 140
 Phe Trp Phe Leu Leu Thr Val Leu Ser Ile Pro Arg Cys Arg Thr Glu
 145 150 155 160
 Val Arg Leu Asp Ala Glu Arg Gln Lys Ile Leu Asn Ser Gln Gln Pro
 165 170 175
 Ser Glu Gln Asp Phe Ser Trp Glu Glu Tyr Gln Phe Val Ser Phe Phe
 180 185 190
 Ile Phe Phe Thr Phe Thr Ser Ile Met Leu Ile Leu Asn Cys Phe Ala
 195 200 205
 Asp Gly Met Pro Arg Gln Thr Lys Tyr Gln Arg Gly Glu Asn Glu Ile
 210 215 220
 Pro Glu Leu Ser Ala Ser Phe Leu Ser Arg Ile Thr Tyr Gln Trp Phe
 225 230 235 240
 Asp Lys Met Ala Leu Lys Gly Tyr Arg Asn Pro Leu Glu Glu Lys Asp
 245 250 255
 Leu Trp Asp Leu Arg Pro Gln Asp Ser Cys Ser Glu Val Met Pro Ile
 260 265 270
 Phe Ala His His Trp Asn Gln Asn Val Arg Lys Asn Tyr Lys Asn Lys
 275 280 285
 Ala Arg Val Glu Pro Lys Ala Gln Phe Ser Asn Gly Asn Val Thr Phe
 290 295 300

Glu Asn Pro His Gly Glu Lys Asn Gly Arg Lys Lys Gly Met Ala Ser
 305 310 315 320
 Ile Met Pro Pro Ile Tyr Lys Ser Phe Gly Gly Val Phe Leu Phe Gly
 325 330 335
 Ala Leu Met Lys Leu Phe Thr Asp Thr Leu Thr Phe Ala Gln Pro Gln
 340 345 350
 Val Leu Ser Leu Ile Ile Ser Phe Val Glu Ala Gln Asp Ala Glu Pro
 355 360 365
 Glu Trp Lys Gly Ile Leu Tyr Ala Val Leu Leu Phe Val Leu Ala Ala
 370 375 380
 Ala Gln Thr Phe Ile Leu Gly Gln Tyr Phe His Arg Met Phe Ile Val
 385 390 395 400
 Gly Leu Arg Ile Arg Thr Ala Leu Ile Asn Ala Ile Tyr Arg Lys Ala
 405 410 415
 Leu Arg Ile Ser Asn Ser Thr Lys Lys Glu Ser Thr Val Gly Glu Ile
 420 425 430
 Val Asn Leu Met Ala Val Asp Ala Gln Arg Phe Met Glu Leu Thr Thr
 435 440 445
 Tyr Leu Asn Met Ile Trp Ser Ala Pro Leu Gln Ile Gly Leu Ala Leu
 450 455 460
 Tyr Phe Leu Trp Gln Gln Leu Gly Pro Ser Val Leu Ala Gly Leu Ala
 465 470 475 480
 Val Met Ile Ile Leu Ile Pro Val Asn Gly Val Ile Ala Ser Arg Ile
 485 490 495
 Lys Thr Tyr Gln Ile Arg Gln Met Lys Tyr Lys Asp Glu Arg Val Lys
 500 505 510
 Leu Met Asn Glu Val Leu Ser Gly Ile Lys Val Leu Lys Leu Tyr Ala
 515 520 525
 Trp Glu Pro Ser Phe Glu Lys Gln Val Leu Asp Ile Arg Asp Lys Glu
 530 535 540
 Ile Ala Thr Leu Arg Ser Thr Ala Tyr Leu Asn Ala Gly Thr Ser Phe
 545 550 555 560
 Leu Trp Ser Cys Ala Pro Phe Leu Val Ser Leu Val Thr Phe Ala Thr
 565 570 575
 Tyr Val Leu Ile Asp Glu Asn Asn Val Leu Asp Ala Thr Lys Thr Phe
 580 585 590
 Val Ser Leu Ser Leu Phe Asn Ile Leu Arg Phe Pro Leu Thr Met Leu
 595 600 605

Pro Met Leu Ile Thr Asn Leu Val Gln Thr Gln Val Ser Val Asn Arg
 610 615 620
 Ile Asn Lys Phe Leu Asn Ser Glu Glu Leu Asp Pro Asn Ser Val Leu
 625 630 635 640
 His Asp Ser Ser Lys Pro His Pro Met Ser Ile Glu Asn Gly Glu Phe
 645 650 655
 Ser Trp Gly Asp Glu Ile Thr Leu Arg Asn Ile Asn Ile Glu Val Lys
 660 665 670
 Lys Gly Ser Leu Val Ala Leu Val Gly Thr Val Gly Ser Gly Lys Ser
 675 680 685
 Ser Val Val Gln Ala Phe Leu Gly Glu Met Glu Lys Leu Ala Gly Val
 690 695 700
 Val Asn Thr Val Gly Lys Leu Ala Tyr Val Pro Gln Gln Ala Trp Ile
 705 710 715 720
 Gln Asn Ala Thr Val Arg Asp Asn Ile Leu Phe Gly Gln Thr Tyr Asp
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 Arg Lys Arg Tyr Asn Lys Val Ile Asp Ala Cys Ala Leu Arg Ala Asp
 740 745 750
 Ile Asp Ile Leu Ser Ala Gly Asp Leu Thr Glu Ile Gly Glu Lys Gly
 755 760 765
 Ile Asn Leu Ser Gly Gly Gln Lys Gln Arg Ile Ser Leu Ala Arg Ala
 770 775 780
 Val Tyr Ser Asp Ala Asp Leu Tyr Leu Leu Asp Asp Pro Leu Ser Ala
 785 790 795 800
 Val Asp Ala His Val Gly Lys His Ile Phe Glu Glu Val Ile Gly Pro
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 Lys Gly Ile Leu Ala Arg Lys Ser Arg Val Leu Val Thr His Gly Val
 820 825 830
 Thr Phe Leu Pro Gln Val Asp Ser Ile Tyr Val Ile Lys Met Gly Glu
 835 840 845
 Ile Ser Glu Ser Gly Thr Phe Asp Gln Leu Val Lys Asn Lys Gly Ala
 850 855 860
 Phe Ala Asp Phe Ile Ile Gln His Leu Gln Glu Gly Asn Glu Glu Glu
 865 870 875 880
 Glu Glu Leu Asn Gln Ile Lys Arg Gln Ile Ser Ser Thr Ala Asp Val
 885 890 895
 Pro Glu Leu Leu Gly Thr Val Glu Lys Ala Ile Lys Leu Ala Arg Thr
 900 905 910

Glu Ser Leu Ser Asp Ser Ile Ser Val Thr Ser Ala Asp Ser Leu Met
 915 920 925
 Gly Gly Gly Ser Leu Arg Arg Arg Thr Lys Arg Gln Asp Ser His
 930 935 940
 Asp Ser Val Ala Ser Ala Ala Ser Leu Lys Lys Lys Gln Glu Val Glu
 945 950 955 960
 Gly Lys Leu Ile Glu Thr Glu Lys Ser Gln Thr Gly Gly Val Glu Phe
 965 970 975
 Ala Val Tyr Lys His Tyr Ile Lys Ser Val Gly Ile Phe Leu Ser Val
 980 985 990
 Ala Thr Leu Val Leu Asn Phe Val Phe Gln Ala Phe Gln Ile Gly Ser
 995 1000 1005
 Asn Leu Trp Leu Thr Gln Trp Ala Asn Asp Gln Asn Val Ala Asn Asp
 1010 1015 1020
 Thr Gly Leu Arg Asp Met Tyr Leu Gly Val Tyr Gly Ala Phe Gly Phe
 1025 1030 1035 1040
 Gly Gln Val Thr Ser Tyr Phe Phe Cys Ser Leu Thr Leu Ala Leu Gly
 1045 1050 1055
 Cys Ile Phe Cys Ser Lys Val Leu His Glu Thr Leu Leu Ser Tyr Val
 1060 1065 1070
 Phe Arg Trp Pro Met Glu Leu Phe Asp Thr Thr Pro Leu Gly Arg Val
 1075 1080 1085
 Val Asn Arg Phe Ser Lys Asp Val Asp Thr Ile Asp Asn Val Leu Pro
 1090 1095 1100
 Met Leu Trp Arg Met Val Ile Ser Gln Ala Phe Ala Val Leu Ala Thr
 1105 1110 1115 1120
 Ile Val Val Ile Ser Leu Ser Thr Pro Ile Phe Leu Ala Val Ile Val
 1125 1130 1135
 Pro Ile Ala Phe Leu Tyr Tyr Phe Ala Gln Arg Phe Tyr Val Ala Thr
 1140 1145 1150
 Ser Arg Gln Leu Met Arg Leu Glu Ser Val Ser Arg Ser Pro Ile Tyr
 1155 1160 1165
 Ser His Phe Ser Glu Thr Val Thr Gly Ala Ser Thr Ile Arg Ala Tyr
 1170 1175 1180
 Asn Val Gly Asp Arg Phe Ile Glu Glu Ser Asp Ala Lys Val Asp Lys
 1185 1190 1195 1200
 Asn Gln Val Cys Lys Tyr Pro Ser Val Ile Ala Asn Arg Trp Leu Ala
 1205 1210 1215

Ile Arg Leu Glu Met Val Gly Asn Leu Ile Ile Leu Phe Ala Ser Leu
 1220 1225 1230

 Phe Ala Val Leu Gly Gly Gln Thr Asn Pro Gly Leu Val Gly Leu Ser
 1235 1240 1245

 Val Ser Tyr Ala Leu Gln Val Thr Gln Thr Leu Asn Trp Leu Val Arg
 1250 1255 1260

 Met Ser Ser Asp Ile Glu Thr Asn Ile Val Ser Val Glu Arg Ile Lys
 1265 1270 1275 1280

 Glu Tyr Gly Glu Thr Lys Gln Glu Ala Pro Trp Glu Leu Glu Gln Asp
 1285 1290 1295

 Lys Asn Lys Pro Lys Asn Trp Pro Gln Glu Gly Arg Val Glu Phe Gln
 1300 1305 1310

 Asn Phe Gln Val Arg Tyr Arg Glu Gly Leu Asp Leu Val Leu Arg Gly
 1315 1320 1325

 Val Ser Phe Asn Ile Gln Gly Gly Glu Lys Val Gly Ile Val Gly Arg
 1330 1335 1340

 Thr Gly Ala Gly Lys Ser Ser Leu Thr Leu Ala Leu Phe Arg Ile Ile
 1345 1350 1355 1360

 Glu Ala Ala Gly Gly Arg Ile Ser Ile Asp Gly Val Asp Ile Ala Ser
 1365 1370 1375

 Met Gly Leu His Met Leu Arg Ser Arg Leu Thr Ile Ile Pro Gln Asp
 1380 1385 1390

 Pro Val Leu Phe Ser Gly Ser Leu Arg Ile Asn Leu Asp Pro Phe Glu
 1395 1400 1405

 Ile Lys Thr Asp Asp Glu Ile Trp Lys Ala Leu Glu Leu Ser His Leu
 1410 1415 1420

 Lys Ser Phe Val Lys Ser Leu Ala Ala Gly Leu Asn His Glu Ile Ala
 1425 1430 1435 1440

 Glu Gly Gly Glu Asn Leu Ser Val Gly Gln Arg Gln Leu Val Cys Leu
 1445 1450 1455

 Ala Arg Ala Leu Leu Arg Lys Thr Lys Val Leu Val Leu Asp Glu Ala
 1460 1465 1470

 Thr Ala Ala Val Asp Leu Glu Thr Asp Asp Leu Ile Gln Lys Thr Ile
 1475 1480 1485

 Arg Thr Glu Phe Lys Glu Cys Thr Val Leu Thr Ile Ala His Arg Leu
 1490 1495 1500

 Asn Thr Ile Leu Asp Ser Asp Lys Val Ile Val Leu Asp Lys Gly Gln
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Ile Ile Glu Phe Ala Ser Pro Thr Glu Leu Leu Asp Asn Pro Lys Ser
 1525 1530 1535

Ala Phe

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 <212> PRT
 <213> Drosophila melanogaster

<400> 26
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Phe Trp Asn Ala Thr Glu Thr Trp Tyr Thr Asn Asp Pro Asp Phe Thr
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Pro Cys Phe Glu Gln Thr Ala Leu Val Trp Thr Pro Cys Ala Phe Tyr
 35 40 45

Trp Ala Phe Val Ile Phe Asp Phe Tyr Tyr Leu Lys Ala Ser Leu Asp
 50 55 60

Arg Asn Ile Pro Trp Asn Lys Leu Asn Val Ser Lys Ala Leu Val Asn
 65 70 75 80

Leu Gly Leu Leu Val Ile Thr Ala Leu Asp Leu Ile Met Ala Leu Val
 85 90 95

Lys Lys Gly Gly Asp Ser Glu Leu Pro Leu Tyr Asp Leu Asp Val Trp
 100 105 110

Gly Pro Ile Ile Lys Phe Ala Thr Phe Leu Leu Leu Phe Ile Phe Ile
 115 120 125

Pro Leu Asn Arg Lys Tyr Gly Val Gln Thr Thr Gly Cys Gln Phe Ile
 130 135 140

Phe Trp Phe Leu Leu Thr Val Leu Ser Ile Pro Arg Cys Arg Thr Glu
 145 150 155 160

Val Arg Leu Asp Ala Glu Arg Gln Lys Ile Leu Asn Ser Gln Gln Pro
 165 170 175

Ser Glu Gln Asp Phe Ser Trp Glu Glu Tyr Gln Phe Val Ser Phe Phe
 180 185 190

Ile Phe Phe Thr Phe Thr Ser Ile Met Leu Ile Leu Asn Cys Phe Ala
 195 200 205

Asp Gly Met Pro Arg Gln Thr Lys Tyr Gln Arg Gly Glu Asn Glu Ile
 210 215 220

Pro Glu Leu Ser Ala Ser Phe Leu Ser Arg Ile Thr Tyr Gln Trp Phe
 225 230 235 240

Asp Lys Met Ala Leu Lys Gly Tyr Arg Asn Pro Leu Glu Glu Lys Asp
 245 250 255
 Leu Trp Asp Leu Arg Pro Gln Asp Ser Cys Ser Glu Val Met Pro Ile
 260 265 270
 Phe Ala His His Trp Asn Gln Asn Val Arg Lys Asn Tyr Lys Asn Lys
 275 280 285
 Ala Arg Val Glu Pro Lys Ala Gln Phe Ser Asn Gly Asn Val Thr Phe
 290 295 300
 Glu Asn Pro His Gly Glu Lys Asn Gly Arg Lys Lys Gly Met Ala Ser
 305 310 315 320
 Ile Met Pro Pro Ile Tyr Lys Ser Phe Gly Gly Val Phe Leu Phe Gly
 325 330 335
 Ala Leu Met Lys Leu Phe Thr Asp Thr Leu Thr Phe Ala Gln Pro Gln
 340 345 350
 Val Leu Ser Leu Ile Ile Ser Phe Val Glu Ala Gln Asp Ala Glu Pro
 355 360 365
 Glu Trp Lys Gly Ile Leu Tyr Ala Val Leu Leu Phe Val Leu Ala Ala
 370 375 380
 Ala Gln Thr Phe Ile Leu Gly Gln Tyr Phe His Arg Met Phe Ile Val
 385 390 395 400
 Gly Leu Arg Ile Arg Thr Ala Leu Ile Asn Ala Ile Tyr Arg Lys Ala
 405 410 415
 Leu Arg Ile Ser Asn Ser Thr Lys Lys Glu Ser Thr Val Gly Glu Ile
 420 425 430
 Val Asn Leu Met Ala Val Asp Ala Gln Arg Phe Met Glu Leu Thr Thr
 435 440 445
 Tyr Leu Asn Met Ile Trp Ser Ala Pro Leu Gln Ile Gly Leu Ala Leu
 450 455 460
 Tyr Phe Leu Trp Gln Gln Leu Gly Pro Ser Val Leu Ala Gly Leu Ala
 465 470 475 480
 Val Met Ile Ile Leu Ile Pro Val Asn Gly Val Ile Ala Ser Arg Ile
 485 490 495
 Lys Thr Tyr Gln Ile Arg Gln Met Lys Tyr Lys Asp Glu Arg Val Lys
 500 505 510
 Leu Met Asn Glu Val Leu Ser Gly Ile Lys Val Leu Lys Leu Tyr Ala
 515 520 525
 Trp Glu Pro Ser Phe Glu Lys Gln Val Leu Asp Ile Arg Asp Lys Glu
 530 535 540

Ile Ala Thr Leu Arg Ser Thr Ala Tyr Leu Asn Ala Gly Thr Ser Phe
 545 550 555 560
 Leu Trp Ser Cys Ala Pro Phe Leu Val Ser Leu Val Thr Phe Ala Thr
 565 570 575
 Tyr Val Leu Ile Asp Glu Asn Asn Val Leu Asp Ala Thr Lys Thr Phe
 580 585 590
 Val Ser Leu Ser Leu Phe Asn Ile Leu Arg Phe Pro Leu Thr Met Leu
 595 600 605
 Pro Met Leu Ile Thr Asn Leu Val Gln Thr Gln Val Ser Val Asn Arg
 610 615 620
 Ile Asn Lys Phe Leu Asn Ser Glu Glu Leu Asp Pro Asn Ser Val Leu
 625 630 635 640
 His Asp Ser Ser Lys Pro His Pro Met Ser Ile Glu Asn Gly Glu Phe
 645 650 655
 Ser Trp Gly Asp Glu Ile Thr Leu Arg Asn Ile Asn Ile Glu Val Lys
 660 665 670
 Lys Gly Ser Leu Val Ala Leu Val Gly Thr Val Gly Ser Gly Lys Ser
 675 680 685
 Ser Val Val Gln Ala Phe Leu Gly Glu Met Glu Lys Leu Ala Gly Val
 690 695 700
 Val Asn Thr Val Gly Lys Leu Ala Tyr Val Pro Gln Gln Ala Trp Ile
 705 710 715 720
 Gln Asn Ala Thr Val Arg Asp Asn Ile Leu Phe Gly Gln Thr Tyr Asp
 725 730 735
 Arg Lys Arg Tyr Asn Lys Val Ile Asp Ala Cys Ala Leu Arg Ala Asp
 740 745 750
 Ile Asp Ile Leu Ser Ala Gly Asp Leu Thr Glu Ile Gly Glu Lys Gly
 755 760 765
 Ile Asn Leu Ser Gly Gly Gln Lys Gln Arg Ile Ser Leu Ala Arg Ala
 770 775 780
 Val Tyr Ser Asp Ala Asp Leu Tyr Leu Leu Asp Asp Pro Leu Ser Ala
 785 790 795 800
 Val Asp Ala His Val Gly Lys His Ile Phe Glu Glu Val Ile Gly Pro
 805 810 815
 Lys Gly Ile Leu Ala Arg Lys Ser Arg Val Leu Val Thr His Gly Val
 820 825 830
 Thr Phe Leu Pro Gln Val Asp Ser Ile Tyr Val Ile Lys Met Gly Glu
 835 840 845

Ile Ser Glu Ser Gly Thr Phe Asp Gln Leu Val Lys Asn Lys Gly Ala
 850 855 860
 Phe Ala Asp Phe Ile Ile Gln His Leu Gln Glu Gly Asn Glu Glu Glu
 865 870 875 880
 Glu Glu Leu Asn Gln Ile Lys Arg Gln Ile Ser Ser Thr Ala Asp Val
 885 890 895
 Pro Glu Leu Leu Gly Thr Val Glu Lys Ala Ile Lys Leu Ala Arg Thr
 900 905 910
 Glu Ser Leu Ser Asp Ser Ile Ser Val Thr Ser Ala Asp Ser Leu Met
 915 920 925
 Gly Gly Gly Ser Leu Arg Arg Arg Thr Lys Arg Gln Asp Ser His
 930 935 940
 Asp Ser Val Ala Ser Ala Ala Ser Leu Lys Lys Lys Gln Glu Val Glu
 945 950 955 960
 Gly Lys Leu Ile Glu Thr Glu Lys Ser Gln Thr Gly Gly Val Glu Phe
 965 970 975
 Ala Val Tyr Lys His Tyr Ile Lys Ser Val Gly Ile Phe Leu Ser Val
 980 985 990
 Ala Thr Leu Val Leu Asn Phe Val Phe Gln Ala Phe Gln Ile Gly Ser
 995 1000 1005
 Asn Leu Trp Leu Thr Gln Trp Ala Asn Asp Gln Asn Val Ala Asn Asp
 1010 1015 1020
 Thr Gly Leu Arg Asp Met Tyr Leu Gly Val Tyr Gly Ala Phe Gly Phe
 1025 1030 1035 1040
 Gly Gln Gly Val Leu Ala Tyr Phe Ala Val Val Ile Val Tyr Leu Gly
 1045 1050 1055
 Gly Phe Gln Ala Ala Lys Thr Ile His Asn Glu Leu Leu Ala Val Ile
 1060 1065 1070
 Ile Arg Gly Ser Val Cys Arg Phe Phe Asp Ile Thr Pro Ile Gly Arg
 1075 1080 1085
 Leu Leu Asn Ser Phe Ser Gly Asp Met Asp Val Val Asp Glu Glu Leu
 1090 1095 1100
 Pro Ala Thr Met Asp Ser Phe Met Thr Phe Ile Phe Met Val Leu Ala
 1105 1110 1115 1120
 Thr Ile Val Val Ile Ser Leu Ser Thr Pro Ile Phe Leu Ala Val Ile
 1125 1130 1135
 Val Pro Ile Ala Phe Leu Tyr Tyr Phe Ala Gln Arg Phe Tyr Val Ala
 1140 1145 1150

Thr Ser Arg Gln Leu Met Arg Leu Glu Ser Val Ser Arg Ser Pro Ile
 1155 1160 1165
 Tyr Ser His Phe Ser Glu Thr Val Thr Gly Ala Ser Thr Ile Arg Ala
 1170 1175 1180
 Tyr Asn Val Gly Asp Arg Phe Ile Glu Glu Ser Asp Ala Lys Val Asp
 1185 1190 1195 1200
 Lys Asn Gln Val Cys Lys Tyr Pro Ser Val Ile Ala Asn Arg Trp Leu
 1205 1210 1215
 Ala Ile Arg Leu Glu Met Val Gly Asn Leu Ile Ile Leu Phe Ala Ser
 1220 1225 1230
 Leu Phe Ala Val Leu Gly Gly Gln Thr Asn Pro Gly Leu Val Gly Leu
 1235 1240 1245
 Ser Val Ser Tyr Ala Leu Gln Val Thr Gln Thr Leu Asn Trp Leu Val
 1250 1255 1260
 Arg Met Ser Ser Asp Ile Glu Thr Asn Ile Val Ser Val Glu Arg Ile
 1265 1270 1275 1280
 Lys Glu Tyr Gly Glu Thr Lys Gln Glu Ala Pro Trp Glu Leu Glu Gln
 1285 1290 1295
 Asp Lys Asn Lys Pro Lys Asn Trp Pro Gln Glu Gly Arg Val Glu Phe
 1300 1305 1310
 Gln Asn Phe Gln Val Arg Tyr Arg Glu Gly Leu Asp Leu Val Leu Arg
 1315 1320 1325
 Gly Val Ser Phe Asn Ile Gln Gly Gly Glu Lys Val Gly Ile Val Gly
 1330 1335 1340
 Arg Thr Gly Ala Gly Lys Ser Ser Leu Thr Leu Ala Leu Phe Arg Ile
 1345 1350 1355 1360
 Ile Glu Ala Ala Gly Gly Arg Ile Ser Ile Asp Gly Val Asp Ile Ala
 1365 1370 1375
 Ser Met Gly Leu His Met Leu Arg Ser Arg Leu Thr Ile Ile Pro Gln
 1380 1385 1390
 Asp Pro Val Leu Phe Ser Gly Ser Leu Arg Ile Asn Leu Asp Pro Phe
 1395 1400 1405
 Glu Ile Lys Thr Asp Asp Glu Ile Trp Lys Ala Leu Glu Leu Ser His
 1410 1415 1420
 Leu Lys Ser Phe Val Lys Ser Leu Ala Ala Gly Leu Asn His Glu Ile
 1425 1430 1435 1440
 Ala Glu Gly Gly Glu Asn Leu Ser Val Gly Gln Arg Gln Leu Val Cys
 1445 1450 1455

Leu Ala Arg Ala Leu Leu Arg Lys Thr Lys Val Leu Val Leu Asp Glu
 1460 1465 1470

Ala Thr Ala Ala Val Asp Leu Glu Thr Asp Asp Leu Ile Gln Lys Thr
 1475 1480 1485

Ile Arg Thr Glu Phe Lys Glu Cys Thr Val Leu Thr Ile Ala His Arg
 1490 1495 1500

Leu Asn Thr Ile Leu Asp Ser Asp Lys Val Ile Val Leu Asp Lys Gly
 1505 1510 1515 1520

Gln Ile Ile Glu Phe Ala Ser Pro Thr Glu Leu Leu Asp Asn Pro Lys
 1525 1530 1535

Ser Ala Phe

<210> 27

<211> 1538

<212> PRT

<213> Drosophila melanogaster

<400> 27

Met Ala Asp Asp Thr Ser Ser Pro Met Asp Arg Phe Cys Gly Ser Thr
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Phe Trp Asn Ala Thr Glu Thr Trp Tyr Thr Asn Asp Pro Asp Phe Thr
 20 25 30

Pro Cys Phe Glu Gln Thr Ala Leu Val Trp Thr Pro Cys Ala Phe Tyr
 35 40 45

Trp Ala Phe Val Ile Phe Asp Phe Tyr Tyr Leu Lys Ala Ser Leu Asp
 50 55 60

Arg Asn Ile Pro Trp Asn Lys Leu Asn Val Ser Lys Ala Leu Val Asn
 65 70 75 80

Leu Gly Leu Leu Val Ile Thr Ala Leu Asp Leu Ile Met Ala Leu Val
 85 90 95

Lys Lys Gly Gly Asp Ser Glu Leu Pro Leu Tyr Asp Leu Asp Val Trp
 100 105 110

Gly Pro Ile Ile Lys Phe Ala Thr Phe Leu Leu Leu Phe Ile Phe Ile
 115 120 125

Pro Leu Asn Arg Lys Tyr Gly Val Gln Thr Thr Gly Cys Gln Phe Ile
 130 135 140

Phe Trp Phe Leu Leu Thr Val Leu Ser Ile Pro Arg Cys Arg Thr Glu
 145 150 155 160

Val Arg Leu Asp Ala Glu Arg Gln Lys Ile Leu Asn Ser Gln Gln Pro
 165 170 175

Ser Glu Gln Asp Phe Ser Trp Glu Glu Tyr Gln Phe Val Ser Phe Phe
 180 185 190
 Ile Phe Phe Thr Phe Thr Ser Ile Met Leu Ile Leu Asn Cys Phe Ala
 195 200 205
 Asp Gly Met Pro Arg Gln Thr Lys Tyr Gln Arg Gly Glu Asn Glu Ile
 210 215 220
 Pro Glu Leu Ser Ala Ser Phe Leu Ser Arg Ile Thr Tyr Gln Trp Phe
 225 230 235 240
 Asp Lys Met Ala Leu Lys Gly Tyr Arg Asn Pro Leu Glu Glu Lys Asp
 245 250 255
 Leu Trp Asp Leu Arg Pro Gln Asp Ser Cys Ser Glu Val Met Pro Ile
 260 265 270
 Phe Ala His His Trp Asn Gln Asn Val Arg Lys Asn Tyr Lys Asn Lys
 275 280 285
 Ala Arg Val Glu Pro Lys Ala Gln Phe Ser Asn Gly Asn Val Thr Phe
 290 295 300
 Glu Asn Pro His Gly Glu Lys Asn Gly Arg Lys Lys Gly Met Ala Ser
 305 310 315 320
 Ile Met Pro Pro Ile Tyr Lys Ser Phe Gly Gly Val Phe Leu Phe Gly
 325 330 335
 Ala Leu Met Lys Leu Phe Thr Asp Thr Leu Thr Phe Ala Gln Pro Gln
 340 345 350
 Val Leu Ser Leu Ile Ile Ser Phe Val Glu Ala Gln Asp Ala Glu Pro
 355 360 365
 Glu Trp Lys Gly Ile Leu Tyr Ala Val Leu Leu Phe Val Leu Ala Ala
 370 375 380
 Ala Gln Thr Phe Ile Leu Gly Gln Tyr Phe His Arg Met Phe Ile Val
 385 390 395 400
 Gly Leu Arg Ile Arg Thr Ala Leu Ile Asn Ala Ile Tyr Arg Lys Ala
 405 410 415
 Leu Arg Ile Ser Asn Ser Thr Lys Lys Glu Ser Thr Val Gly Glu Ile
 420 425 430
 Val Asn Leu Met Ala Val Asp Ala Gln Arg Phe Met Glu Leu Thr Thr
 435 440 445
 Tyr Leu Asn Met Ile Trp Ser Ala Pro Leu Gln Ile Gly Leu Ala Leu
 450 455 460
 Tyr Phe Leu Trp Gln Gln Leu Gly Pro Ser Val Leu Ala Gly Leu Ala
 465 470 475 480

Val Met Ile Ile Leu Ile Pro Val Asn Gly Val Ile Ala Ser Arg Ile
 485 490 495
 Lys Thr Tyr Gln Ile Arg Gln Met Lys Tyr Lys Asp Glu Arg Val Lys
 500 505 510
 Leu Met Asn Glu Val Leu Ser Gly Ile Lys Val Leu Lys Leu Tyr Ala
 515 520 525
 Trp Glu Pro Ser Phe Glu Lys Gln Val Leu Asp Ile Arg Asp Lys Glu
 530 535 540
 Ile Ala Thr Leu Arg Ser Thr Ala Tyr Leu Asn Ala Gly Thr Ser Phe
 545 550 555 560
 Leu Trp Ser Cys Ala Pro Phe Leu Val Ser Leu Val Thr Phe Ala Thr
 565 570 575
 Tyr Val Leu Ile Asp Glu Asn Asn Val Leu Asp Ala Thr Lys Thr Phe
 580 585 590
 Val Ser Leu Ser Leu Phe Asn Ile Leu Arg Phe Pro Leu Thr Met Leu
 595 600 605
 Pro Met Leu Ile Thr Asn Leu Val Gln Thr Gln Val Ser Val Asn Arg
 610 615 620
 Ile Asn Lys Phe Leu Asn Ser Glu Glu Leu Asp Pro Asn Ser Val Leu
 625 630 635 640
 His Asp Ser Ser Lys Pro His Pro Met Ser Ile Glu Asn Gly Glu Phe
 645 650 655
 Ser Trp Gly Asp Glu Ile Thr Leu Arg Asn Ile Asn Ile Glu Val Lys
 660 665 670
 Lys Gly Ser Leu Val Ala Leu Val Gly Thr Val Gly Ser Gly Lys Ser
 675 680 685
 Ser Val Val Gln Ala Phe Leu Gly Glu Met Glu Lys Leu Ala Gly Val
 690 695 700
 Val Asn Thr Val Gly Lys Leu Ala Tyr Val Pro Gln Gln Ala Trp Ile
 705 710 715 720
 Gln Asn Ala Thr Val Arg Asp Asn Ile Leu Phe Gly Gln Thr Tyr Asp
 725 730 735
 Arg Lys Arg Tyr Asn Lys Val Ile Asp Ala Cys Ala Leu Arg Ala Asp
 740 745 750
 Ile Asp Ile Leu Ser Ala Gly Asp Leu Thr Glu Ile Gly Glu Lys Gly
 755 760 765
 Ile Asn Leu Ser Gly Gly Gln Lys Gln Arg Ile Ser Leu Ala Arg Ala
 770 775 780

Val Tyr Ser Asp Ala Asp Leu Tyr Leu Leu Asp Asp Pro Leu Ser Ala
 785 790 795 800

Val Asp Ala His Val Gly Lys His Ile Phe Glu Glu Val Ile Gly Pro
 805 810 815

Lys Gly Ile Leu Ala Arg Lys Ser Arg Val Leu Val Thr His Gly Val
 820 825 830

Thr Phe Leu Pro Gln Val Asp Ser Ile Tyr Val Ile Lys Met Gly Glu
 835 840 845

Ile Ser Glu Ser Gly Thr Phe Asp Gln Leu Val Lys Asn Lys Gly Ala
 850 855 860

Phe Ala Asp Phe Ile Ile Gln His Leu Gln Glu Gly Asn Glu Glu Glu
 865 870 875 880

Glu Glu Leu Asn Gln Ile Lys Arg Gln Ile Ser Ser Thr Ala Asp Val
 885 890 895

Pro Glu Leu Leu Gly Thr Val Glu Lys Ala Ile Lys Leu Ala Arg Thr
 900 905 910

Glu Ser Leu Ser Asp Ser Ile Ser Val Thr Ser Ala Asp Ser Leu Met
 915 920 925

Gly Gly Gly Ser Leu Arg Arg Arg Thr Lys Arg Gln Asp Ser His
 930 935 940

Asp Ser Val Ala Ser Ala Ala Ser Leu Lys Lys Lys Gln Glu Val Glu
 945 950 955 960

Gly Lys Leu Ile Glu Thr Glu Lys Ser Gln Thr Gly Gly Val Glu Phe
 965 970 975

Ala Val Tyr Lys His Tyr Ile Lys Ser Val Gly Ile Phe Leu Ser Val
 980 985 990

Ala Thr Leu Val Leu Asn Phe Val Phe Gln Ala Phe Gln Ile Gly Ser
 995 1000 1005

Asn Leu Trp Leu Thr Gln Trp Ala Asn Asp Gln Asn Val Ala Asn Asp
 1010 1015 1020

Thr Gly Leu Arg Asp Met Tyr Leu Gly Val Tyr Gly Ala Phe Gly Phe
 1025 1030 1035 1040

Gly Gln Gly Leu Cys Asn Tyr Gly Ala Ala Ile Ser Leu Phe Thr Ala
 1045 1050 1055

Thr Leu His Ala Ser Ser Arg Val Phe His Arg Leu Phe Asn Asn Ile
 1060 1065 1070

Met His Cys Pro Ser Glu Phe Phe Asp Thr Thr Pro Lys Gly Arg Ile
 1075 1080 1085

Leu Asp Arg Cys Ser Ser Asp Val Asn Cys Leu Asp Leu Val Met Pro
 1090 1095 1100

 Leu Asn Ile Arg Met Val Met Ser Thr Ala Phe Gln Val Leu Ala Thr
 1105 1110 1115 1120

 Ile Val Val Ile Ser Leu Ser Thr Pro Ile Phe Leu Ala Val Ile Val
 1125 1130 1135

 Pro Ile Ala Phe Leu Tyr Tyr Phe Ala Gln Arg Phe Tyr Val Ala Thr
 1140 1145 1150

 Ser Arg Gln Leu Met Arg Leu Glu Ser Val Ser Arg Ser Pro Ile Tyr
 1155 1160 1165

 Ser His Phe Ser Glu Thr Val Thr Gly Ala Ser Thr Ile Arg Ala Tyr
 1170 1175 1180

 Asn Val Gly Asp Arg Phe Ile Glu Glu Ser Asp Ala Lys Val Asp Lys
 1185 1190 1195 1200

 Asn Gln Val Cys Lys Tyr Pro Ser Val Ile Ala Asn Arg Trp Leu Ala
 1205 1210 1215

 Ile Arg Leu Glu Met Val Gly Asn Leu Ile Ile Leu Phe Ala Ser Leu
 1220 1225 1230

 Phe Ala Val Leu Gly Gly Gln Thr Asn Pro Gly Leu Val Gly Leu Ser
 1235 1240 1245

 Val Ser Tyr Ala Leu Gln Val Thr Gln Thr Leu Asn Trp Leu Val Arg
 1250 1255 1260

 Met Ser Ser Asp Ile Glu Thr Asn Ile Val Ser Val Glu Arg Ile Lys
 1265 1270 1275 1280

 Glu Tyr Gly Glu Thr Lys Gln Glu Ala Pro Trp Glu Leu Glu Gln Asp
 1285 1290 1295

 Lys Asn Lys Pro Lys Asn Trp Pro Gln Glu Gly Arg Val Glu Phe Gln
 1300 1305 1310

 Asn Phe Gln Val Arg Tyr Arg Glu Gly Leu Asp Leu Val Leu Arg Gly
 1315 1320 1325

 Val Ser Phe Asn Ile Gln Gly Gly Glu Lys Val Gly Ile Val Gly Arg
 1330 1335 1340

 Thr Gly Ala Gly Lys Ser Ser Leu Thr Leu Ala Leu Phe Arg Ile Ile
 1345 1350 1355 1360

 Glu Ala Ala Gly Gly Arg Ile Ser Ile Asp Gly Val Asp Ile Ala Ser
 1365 1370 1375

 Met Gly Leu His Met Leu Arg Ser Arg Leu Thr Ile Ile Pro Gln Asp
 1380 1385 1390

Pro Val Leu Phe Ser Gly Ser Leu Arg Ile Asn Leu Asp Pro Phe Glu
 1395 1400 1405

Ile Lys Thr Asp Asp Glu Ile Trp Lys Ala Leu Glu Leu Ser His Leu
 1410 1415 1420

Lys Ser Phe Val Lys Ser Leu Ala Ala Gly Leu Asn His Glu Ile Ala
 1425 1430 1435 1440

Glu Gly Gly Glu Asn Leu Ser Val Gly Gln Arg Gln Leu Val Cys Leu
 1445 1450 1455

Ala Arg Ala Leu Leu Arg Lys Thr Lys Val Leu Val Leu Asp Glu Ala
 1460 1465 1470

Thr Ala Ala Val Asp Leu Glu Thr Asp Asp Leu Ile Gln Lys Thr Ile
 1475 1480 1485

Arg Thr Glu Phe Lys Glu Cys Thr Val Leu Thr Ile Ala His Arg Leu
 1490 1495 1500

Asn Thr Ile Leu Asp Ser Asp Lys Val Ile Val Leu Asp Lys Gly Gln
 1505 1510 1515 1520

Ile Ile Glu Phe Ala Ser Pro Thr Glu Leu Leu Asp Asn Pro Lys Ser
 1525 1530 1535

Ala Phe

<210> 28
 <211> 1548
 <212> PRT
 <213> Drosophila melanogaster

<400> 28
 Met Ala Asp Asp Thr Ser Ser Pro Met Asp Arg Phe Cys Gly Ser Thr
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Phe Trp Asn Ala Thr Glu Thr Trp Tyr Thr Asn Asp Pro Asp Phe Thr
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Pro Cys Phe Glu Gln Thr Ala Leu Val Trp Thr Pro Cys Ala Phe Tyr
 35 40 45

Trp Ala Phe Val Ile Phe Asp Phe Tyr Tyr Leu Lys Ala Ser Leu Asp
 50 55 60

Arg Asn Ile Pro Trp Asn Lys Leu Asn Val Ser Lys Ala Leu Val Asn
 65 70 75 80

Leu Gly Leu Leu Val Ile Thr Ala Leu Asp Leu Ile Met Ala Leu Val
 85 90 95

Lys Lys Gly Gly Asp Ser Glu Leu Pro Leu Tyr Asp Leu Asp Val Trp
 100 105 110

Gly Pro Ile Ile Lys Phe Ala Thr Phe Leu Leu Leu Phe Ile Phe Ile
 115 120 125

Pro Leu Asn Arg Lys Tyr Gly Val Gln Thr Thr Gly Cys Gln Phe Ile
 130 135 140

Phe Trp Phe Leu Leu Thr Val Leu Ser Ile Pro Arg Cys Arg Thr Glu
 145 150 155 160

Val Arg Leu Asp Ala Glu Arg Gln Lys Ile Leu Asn Ser Gln Gln Pro
 165 170 175

Ser Glu Gln Asp Phe Ser Trp Glu Glu Tyr Gln Phe Val Ser Phe Phe
 180 185 190

Ile Phe Phe Thr Phe Thr Ser Ile Met Leu Ile Leu Asn Cys Phe Ala
 195 200 205

Asp Gly Met Pro Arg Gln Thr Lys Tyr Gln Arg Gly Glu Asn Glu Ile
 210 215 220

Pro Glu Leu Ser Ala Ser Phe Leu Ser Arg Ile Thr Tyr Gln Trp Phe
 225 230 235 240

Asp Lys Met Ala Leu Lys Gly Tyr Arg Asn Pro Leu Glu Glu Lys Asp
 245 250 255

Leu Trp Asp Leu Arg Pro Gln Asp Ser Cys Ser Glu Val Met Pro Ile
 260 265 270

Phe Ala His His Trp Asn Gln Asn Val Arg Lys Asn Tyr Lys Asn Lys
 275 280 285

Ala Arg Val Glu Pro Lys Ala Gln Phe Ser Asn Gly Asn Val Thr Phe
 290 295 300

Glu Asn Pro His Gly Glu Lys Asn Gly Arg Lys Lys Gly Met Ala Ser
 305 310 315 320

Ile Met Pro Pro Ile Tyr Lys Ser Phe Gly Gly Val Phe Leu Phe Gly
 325 330 335

Ala Leu Met Lys Leu Phe Thr Asp Thr Leu Thr Phe Ala Gln Pro Gln
 340 345 350

Val Leu Ser Leu Ile Ile Ser Phe Val Glu Ala Gln Asp Ala Glu Pro
 355 360 365

Glu Trp Lys Gly Ile Leu Tyr Ala Val Leu Leu Phe Val Leu Ala Ala
 370 375 380

Ala Gln Thr Phe Ile Leu Gly Gln Tyr Phe His Arg Met Phe Ile Val
 385 390 395 400

Gly Leu Arg Ile Arg Thr Ala Leu Ile Asn Ala Ile Tyr Arg Lys Ala
 405 410 415

Leu Arg Ile Ser Asn Ser Thr Lys Lys Glu Ser Thr Val Gly Glu Ile
 420 425 430
 Val Asn Leu Met Ala Val Asp Ala Gln Arg Phe Met Glu Leu Thr Thr
 435 440 445
 Tyr Leu Asn Met Ile Trp Ser Ala Pro Leu Gln Ile Gly Leu Ala Leu
 450 455 460
 Tyr Phe Leu Trp Gln Gln Leu Gly Pro Ser Val Leu Ala Gly Leu Ala
 465 470 475 480
 Val Met Ile Ile Leu Ile Pro Val Asn Gly Val Ile Ala Ser Arg Ile
 485 490 495
 Lys Thr Tyr Gln Ile Arg Gln Met Lys Tyr Lys Asp Glu Arg Val Lys
 500 505 510
 Leu Met Asn Glu Val Leu Ser Gly Ile Lys Val Leu Lys Leu Tyr Ala
 515 520 525
 Trp Glu Pro Ser Phe Glu Lys Gln Val Leu Asp Ile Arg Asp Lys Glu
 530 535 540
 Ile Ala Thr Leu Arg Ser Thr Ala Tyr Leu Asn Ala Gly Thr Ser Phe
 545 550 555 560
 Leu Trp Ser Cys Ala Pro Phe Leu Val Ser Leu Val Thr Phe Ala Thr
 565 570 575
 Tyr Val Leu Ile Asp Glu Asn Asn Val Leu Asp Ala Thr Lys Thr Phe
 580 585 590
 Val Ser Leu Ser Leu Phe Asn Ile Leu Arg Phe Pro Leu Thr Met Leu
 595 600 605
 Pro Met Leu Ile Thr Asn Leu Val Gln Thr Gln Val Ser Val Asn Arg
 610 615 620
 Ile Asn Lys Phe Leu Asn Ser Glu Glu Leu Asp Pro Asn Ser Val Leu
 625 630 635 640
 His Asp Ser Ser Lys Pro His Pro Met Ser Ile Glu Asn Gly Glu Phe
 645 650 655
 Ser Trp Gly Asp Glu Ile Thr Leu Arg Asn Ile Asn Ile Glu Val Lys
 660 665 670
 Lys Gly Ser Leu Val Ala Leu Val Gly Thr Val Gly Ser Gly Lys Ser
 675 680 685
 Ser Val Val Gln Ala Phe Leu Gly Glu Met Glu Lys Leu Ala Gly Val
 690 695 700
 Val Asn Thr Val Gly Lys Leu Ala Tyr Val Pro Gln Gln Ala Trp Ile
 705 710 715 720

Gln Asn Ala Thr Val Arg Asp Asn Ile Leu Phe Gly Gln Thr Tyr Asp
 725 730 735

Arg Lys Arg Tyr Asn Lys Val Ile Asp Ala Cys Ala Leu Arg Ala Asp
 740 745 750

Ile Asp Ile Leu Ser Ala Gly Asp Leu Thr Glu Ile Gly Glu Lys Gly
 755 760 765

Ile Asn Leu Ser Gly Gly Gln Lys Gln Arg Ile Ser Leu Ala Arg Ala
 770 775 780

Val Tyr Ser Asp Ala Asp Leu Tyr Leu Leu Asp Asp Pro Leu Ser Ala
 785 790 795 800

Val Asp Ala His Val Gly Lys His Ile Phe Glu Glu Val Ile Gly Pro
 805 810 815

Lys Gly Ile Leu Ala Arg Lys Ser Arg Val Leu Val Thr His Gly Val
 820 825 830

Thr Phe Leu Pro Gln Val Asp Ser Ile Tyr Val Ile Lys Met Gly Glu
 835 840 845

Ile Ser Glu Ser Gly Thr Phe Asp Gln Leu Val Lys Asn Lys Gly Ala
 850 855 860

Phe Ala Asp Phe Ile Ile Gln His Leu Gln Glu Gly Asn Glu Glu Glu
 865 870 875 880

Glu Glu Leu Asn Gln Ile Lys Arg Gln Ile Ser Ser Thr Ala Asp Val
 885 890 895

Pro Glu Leu Leu Gly Thr Val Glu Lys Ala Ile Lys Leu Ala Arg Thr
 900 905 910

Glu Ser Leu Ser Asp Ser Ile Ser Val Thr Ser Ala Asp Ser Leu Met
 915 920 925

Gly Gly Gly Ser Leu Arg Arg Arg Thr Lys Arg Gln Asp Ser His
 930 935 940

Asp Ser Val Ala Ser Ala Ala Ser Leu Lys Lys Lys Gln Glu Val Glu
 945 950 955 960

Gly Lys Leu Ile Glu Thr Glu Lys Ser Gln Thr Gly Gly Val Glu Phe
 965 970 975

Ala Val Tyr Lys His Tyr Ile Lys Ser Val Gly Ile Phe Leu Ser Val
 980 985 990

Ala Thr Leu Val Leu Asn Phe Val Phe Gln Ala Phe Gln Ile Gly Ser
 995 1000 1005

Asn Leu Trp Leu Thr Gln Trp Ala Asn Asp Gln Asn Val Ala Asn Asp
 1010 1015 1020

Thr Gly Leu Arg Asp Met Tyr Leu Gly Val Tyr Gly Ala Phe Gly Phe
 1025 1030 1035 1040
 Gly Gln Gly Phe Thr Ser Phe Phe Ser Asp Leu Ala Pro Ala Leu Gly
 1045 1050 1055
 Ser Leu His Ala Ala Lys Val Leu His Ser Met Leu Leu Glu Asn Val
 1060 1065 1070
 Leu Arg Ala Pro Met Thr Met Phe Asp Thr Thr Pro Val Gly Arg Ile
 1075 1080 1085
 Leu Ser Arg Phe Ser Lys Asp Val Glu Ser Val Asp Gln Lys Met Pro
 1090 1095 1100
 Gln Val Ile Asn Asp Cys Ile Trp Cys Ala Phe Glu Val Leu Ala Thr
 1105 1110 1115 1120
 Ile Val Val Ile Ser Leu Ser Thr Pro Ile Phe Leu Ala Val Ile Val
 1125 1130 1135
 Pro Ile Ala Phe Leu Tyr Tyr Phe Ala Gln Arg Phe Tyr Val Ala Thr
 1140 1145 1150
 Ser Arg Gln Leu Met Arg Leu Glu Ser Val Ser Arg Ser Pro Ile Tyr
 1155 1160 1165
 Ser His Phe Ser Glu Thr Val Thr Gly Ala Ser Thr Ile Arg Ala Tyr
 1170 1175 1180
 Asn Val Gly Asp Arg Phe Ile Glu Glu Ser Asp Ala Lys Val Asp Lys
 1185 1190 1195 1200
 Asn Gln Val Cys Lys Tyr Pro Ser Val Ile Ala Asn Arg Trp Leu Ala
 1205 1210 1215
 Ile Arg Leu Glu Met Val Gly Asn Leu Ile Ile Leu Phe Ala Ser Leu
 1220 1225 1230
 Phe Ala Val Leu Gly Gly Gln Thr Asn Pro Gly Leu Val Gly Leu Ser
 1235 1240 1245
 Val Ser Tyr Ala Leu Gln Val Thr Gln Thr Leu Asn Trp Leu Val Arg
 1250 1255 1260
 Met Ser Ser Asp Ile Glu Thr Asn Ile Val Ser Val Glu Arg Ile Lys
 1265 1270 1275 1280
 Glu Tyr Gly Glu Thr Lys Gln Glu Ala Pro Trp Glu Leu Glu Gln Asp
 1285 1290 1295
 Lys Asn Lys Pro Lys Asn Trp Pro Gln Glu Gly Arg Val Glu Phe Gln
 1300 1305 1310
 Asn Phe Gln Val Arg Tyr Arg Glu Gly Leu Asp Leu Val Leu Arg Gly
 1315 1320 1325

Val Ser Phe Asn Ile Gln Gly Gly Glu Lys Val Gly Ile Val Gly Arg
 1330 1335 1340

Thr Gly Ala Gly Lys Ser Ser Leu Thr Leu Ala Leu Phe Arg Ile Ile
 1345 1350 1355 1360

Glu Ala Ala Gly Gly Arg Ile Ser Ile Asp Gly Val Asp Ile Ala Ser
 1365 1370 1375

Met Gly Leu His Met Leu Arg Ser Arg Leu Thr Ile Ile Pro Gln Asp
 1380 1385 1390

Pro Val Leu Phe Ser Gly Ser Leu Arg Ile Asn Leu Asp Pro Phe Glu
 1395 1400 1405

Ile Lys Thr Asp Asp Glu Ile Trp Lys Ala Leu Glu Leu Ser His Leu
 1410 1415 1420

Lys Ser Phe Val Lys Ser Leu Ala Ala Gly Leu Asn His Glu Ile Ala
 1425 1430 1435 1440

Glu Gly Gly Glu Asn Leu Ser Val Gly Gln Arg Gln Leu Val Cys Leu
 1445 1450 1455

Ala Arg Ala Leu Leu Arg Lys Thr Lys Val Leu Val Leu Asp Glu Ala
 1460 1465 1470

Thr Ala Ala Val Asp Leu Glu Thr Asp Asp Leu Ile Gln Lys Thr Ile
 1475 1480 1485

Arg Thr Glu Phe Lys Glu Cys Thr Val Leu Thr Ile Ala His Arg Leu
 1490 1495 1500

Asn Thr Ile Leu Asp Ser Asp Lys Val Ile Val Leu Asp Lys Gly Gln
 1505 1510 1515 1520

Ile Ile Glu Phe Ala Ser Pro Thr Glu Leu Leu Asp Asn Pro Lys Ser
 1525 1530 1535

Ala Phe Tyr Ser Met Ala Lys Asp Ala Asn Leu Val
 1540 1545

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<220>
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<220>
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<210> 31
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<400> 37
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<210> 38
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<210> 39
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<400> 42
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<210> 43
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<212> DNA
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<220>
<223> Description of Artificial Sequence: Synthetic
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<400> 43
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<210> 44
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<223> Description of Artificial Sequence: Synthetic
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<400> 44
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<400> 45
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<210> 46
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<223> Description of Artificial Sequence: Synthetic
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<400> 46
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<210> 47
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<400> 47
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<220>
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<210> 54
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<400> 55
gaacagaacg ca                                12

<210> 56
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<400> 56
acataggtgc tc                                12

<210> 57
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tttttagtcc gt	12
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<400> 63	
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<210> 64
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<400> 64
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12

<210> 65
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<400> 65
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12

<210> 66
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<400> 66
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<210> 67
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<400> 67
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<210> 68
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<400> 68
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<210> 69
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<400> 69
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<210> 70
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<210> 77
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<400> 77
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<400> 78
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<400> 79
ttccatgtaa gt 12

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<400> 80
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<400> 81
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<400> 82
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<210> 83
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<210> 129
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<400> 129
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<400> 130
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<210> 131
<211> 49
<212> PRT
<213> Homo sapiens

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Ile Leu Asp Ala Gln Thr Ala Phe Val Ser Leu Ala Leu Phe Asn Ile
 20          25           30

Leu Arg Phe Pro Leu Asn Ile Leu Pro Met Val Ile Ser Ser Leu Val
 35           40          45

Gln

<210> 132
<211> 49
<212> PRT
<213> Homo sapiens

<400> 132
Val Ser Val Val Thr Phe Ser Val Tyr Val Leu Val Asp Ser Asn Asn
 1           5           10          15

Ile Leu Asp Ala Gln Lys Ala Phe Thr Ser Ile Thr Leu Phe Asn Ile
 20          25           30

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Leu Arg Phe Pro Leu Ser Met Leu Pro Met Met Ile Ser Ser Met Leu
 35 40 45

Gln

<210> 133
 <211> 49
 <212> PRT
 <213> Homo sapiens

<400> 133
 Val Thr Leu Ile Thr Leu Trp Val Tyr Val Tyr Val Asp Pro Asn Asn
 1 5 10 15

Val Leu Asp Ala Glu Lys Ala Phe Val Ser Val Ser Leu Phe Asn Ile
 20 25 30

Leu Arg Leu Pro Leu Asn Met Leu Pro Gln Leu Ile Ser Asn Leu Thr
 35 40 45

Gln

<210> 134
 <211> 51
 <212> PRT
 <213> Drosophila melanogaster

<400> 134
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 1 5 10 15

Glu Phe Asp Leu Asn Ala Ser Arg Leu Phe Ser Ser Leu Ala Leu Phe
 20 25 30

Gln Gln Leu Thr Val Pro Leu Leu Ile Phe Pro Ile Thr Val Pro Ile
 35 40 45

Ile Ile Ala
 50

<210> 135
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 <212> PRT
 <213> Homo sapiens

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 1 5 10 15

Ala Ser Arg Cys Leu His Val Asp Leu Leu His Ser Ile Leu Arg Ser
 20 25 30

Pro Met Ser Phe Phe Glu Arg Thr Pro Ser Gly Asn Leu Val Asn Arg
 35 40 45

Phe Ser Lys Glu Leu Asp Thr Val Asp Ser Met Ile Pro Glu Val Ile
 50 55 60

Lys Met Phe Met Gly Ser Leu Phe Asn
 65 70

<210> 136
 <211> 73
 <212> PRT
 <213> Homo sapiens

<400> 136
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Ala Ser Asn Ile Leu His Lys Gln Leu Leu Asn Asn Ile Leu Arg Ala
 20 25 30

Pro Met Arg Phe Phe Asp Thr Thr Pro Thr Gly Arg Ile Val Asn Arg
 35 40 45

Phe Ala Gly Asp Ile Ser Thr Val Asp Asp Thr Leu Pro Gln Ser Leu
 50 55 60

Arg Ser Trp Ile Thr Cys Phe Leu Gly
 65 70

<210> 137
 <211> 73
 <212> PRT
 <213> Homo sapiens

<400> 137
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 1 5 10 15

Ala Ala Arg Val Leu His Gln Ala Leu Leu His Asn Lys Ile Arg Ser
 20 25 30

Pro Gln Ser Phe Phe Asp Thr Thr Pro Ser Gly Arg Ile Leu Asn Cys
 35 40 45

Phe Ser Lys Asp Ile Tyr Val Val Asp Glu Val Leu Ala Pro Val Ile
 50 55 60

Leu Met Leu Leu Asn Ser Phe Phe Asn
 65 70

<210> 138
 <211> 69
 <212> PRT
 <213> Drosophila melanogaster

<400> 138
Val Ser Thr Pro Ala Gly Gln Tyr Ala Gly Cys Asn Ala Arg Arg Asn
1 5 10 15

Leu His Asp Lys Leu Leu Gln Thr Ile Leu His Lys Thr Leu His Phe
20 25 30

Phe Gln Val Thr Pro Leu Gly Arg Ile Val Asn Arg Phe Ser Asn Asp
35 40 45

Met Ala Val Ile Asp Lys Lys Ile Ala Ala Thr Gly Gln Phe Thr Leu
50 55 60

Arg Leu Leu Gln Leu
65

<210> 139
<211> 72
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Consensus
sequence for ABC transporter membrane spanning
domain

<400> 139
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1 5 10 15

Arg Lys Arg Leu Phe Arg Ala Leu Leu Arg Gln Ile Leu Gly Leu Phe
20 25 30

Met Ser Phe Phe Asp Thr Asn Ser Thr Gly Glu Leu Thr Ser Arg Leu
35 40 45

Thr Asn Asp Val Ser Lys Ile Arg Asp Gly Leu Gly Glu Lys Leu Gly
50 55 60

Leu Leu Phe Gln Ser Leu Ala Thr
65 70